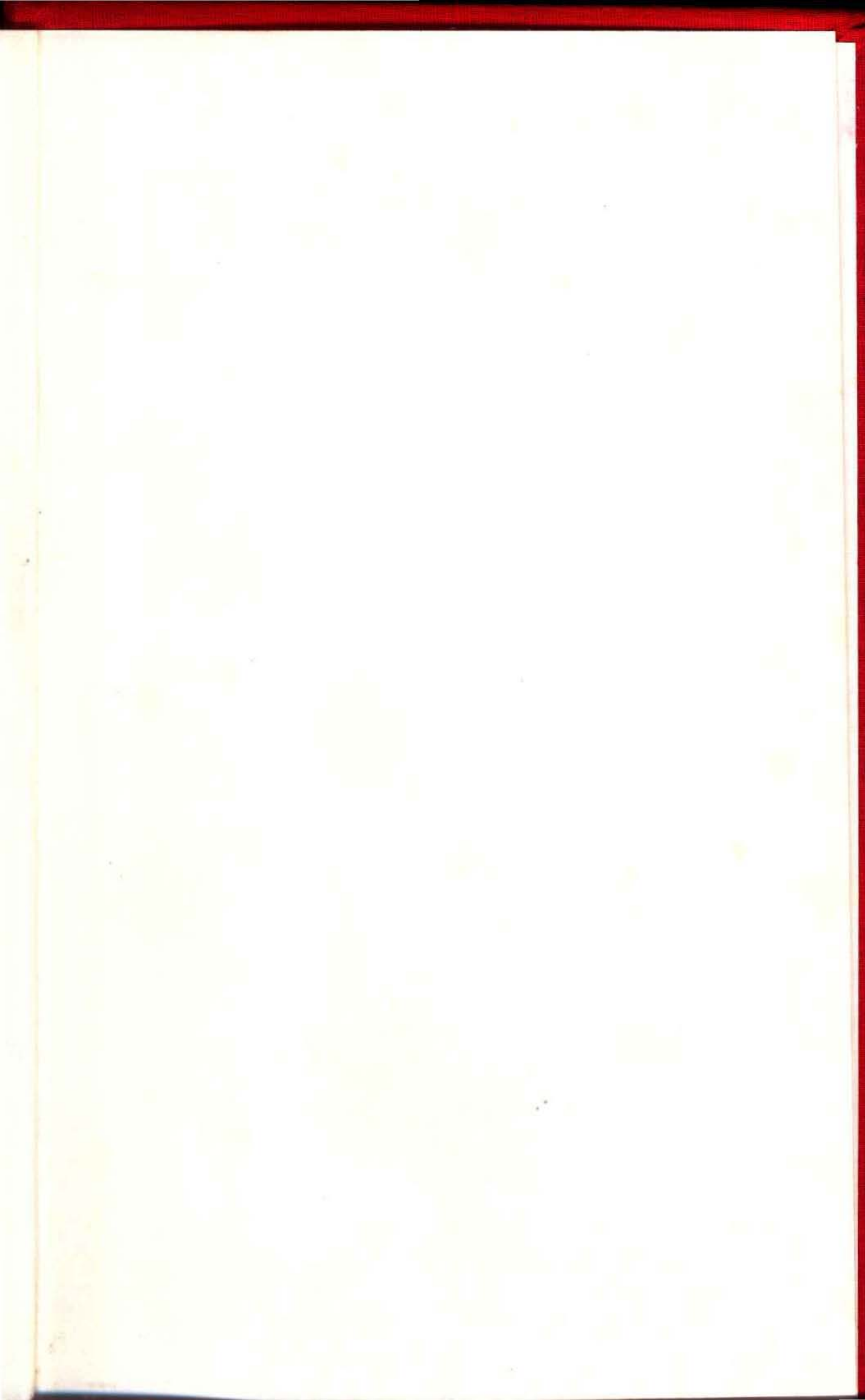
Re-organising Indian Śāstric Traditions

Radhavallabh Tripathi
Achyutananda Dash

The papers presented in this volume were presented in a National Seminar organised under the auspices of Sanskrit Department Dr. Hari Singh Gour University Sagar, with assistance from the University Grants Commission, New Delhi under SAP Scheme. They attempt an indepth study of the vast gamut of Sastric traditions in Sanskrit with a view to present these traditions in a more coherent and systematic way through new analytical or scientific techniques. These papers bring out a world view of our S'āstric traditions.



Re-organising Indian Śāstric Traditions

(Proceedings of National Seminar)

Edited by

Radha Vallabh Tripathi
Achyutanand Dash



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PREFACE

Indian śāstric traditions have developed in multiple streams and they have ever been receptive to new thinking. The development of each *śāstra* has involved a process of its re-organisation in some form or the other. Be it the debates or discourses presented through the dialogues between the *pūrvapakṣa* and *uttarapakṣa*, or various channels of interpretation like *bhāṣya, saṁgraha, parikara śloka, ānuvaṁśya śloka, kārikā, vṛtti, cūrṇikā, phakkikā* and a host of others, the primary concern of the *śāstrakāras* was to meet the challenges presented by the changed situations and to re-organise their system of thought with a view to make it more versatile and dynamic. The growth of several systems of Indian philosophy, various schools of *Vyākaraṇa* and the grammar-books written by authors like Hemacandra, Dharmakīrti, Varadarāja and a host of others, as well as the interactions and debates between *ācāryas* of *Alaṅkāraśāstra* testify the aliveness of our śāstric traditions which still sustains them. Therefore we find that new grammars or texts in philosophy are being written in Sanskrit with the same zeal.

The Process of re-organisation is a mark of the living traditions and their receptivity to the new thought. It also involves interaction between tradition and modernity.

In our age, Computers have made their place in academic world. Manuscripts are being digitised. Manuscripts can be obtained from remote places through Electronic Mail. A world wide web is being created. In Western countries every book-shop has a section of CD-roms. Study of literature and *śāstras* through computer is opening new vistas of critical analysis and evaluation.

Sanskrit Studies in the last two decades of this century found a new impetus through their interaction with Computer based knowledge. In 1985 and 1986 Rick Briggs, a computer scientist working at RIACS, NASA in USA published the following papers in *Artificial Intelligence Magazine* -

1. Knowledge Representation in Sanskrit and Artificial Intelligence.
2. Shastric Sanskrit as a Machine Translation Interlingua.

The publication of these papers heralded an era of new investigations, querries and experimentations with respect to *śāstras* and data-base knowledge. Eventhough the contentions of Rick Briggs were met with mixed reactions and counter reactions, the possibilities emerging through them could not be denied altogether. Recently, joint efforts of computer scientists and Sanskrit scholars in this direction have started yielding somefruitful results. The techniques of *Navya-nyāya* and Pāṇinian linguistic models were found useful for 4NLP and AI. On the other hand, the computational techniques came to be utilised for preparing data-base of our *śāstras*, with a view to extend their frontiers and stimulate and enliven the śāstric studies with modern scientific methods of analysis. An active inter-relationship between computer science and Sanskrit *śāstras* thus can be evolved and both of them can go hand in hand together to enrich various disciplines under each.

The C-DAC (Centre for Development of Advance Computing) established in 1989 by Govt. of India with its head office at Pune has been active in both these directions. It has been going ahead with a systematic plan for computer recording of *Aṣṭādhyāyī*. Data-base for sevaral other texts have been prepared or stored at the Banglore office of C-DAC, where Vedavāridhi P. Ramanujan has been preparing softwares based on *Pāṇini-Vyākaraṇa*, *Mīmāṁsā* and *Vedas*.

The Department of Computer Science and Engineering at I.I.T. Kanpur, under the active leadership of Dr. Rajeev Sangal has organised a number of workshops/courses involving Sanskrit scholars and computer scientists. Preparation of an Integrated Grammar for Indian Languages on the basis of Pāṇini and evolving softwares for Machine Translations have particularly occupied the attention of Dr. Sangal and his associates. Mention may be made to "Natural Language Processsing -A Pāṇinian Perspective" (1995) out of various publications brought out by Dr. Sangal featuring fruitful interaction between Sanskritists and computer scientists. Various categories of Pāṇinian grammar have been analysed to prepare tools for Machine translation or Universal Grammatical models.

Several universities and institutes have come forward with the computer based studies of Sanskrit texts. Dr. P.K. Mukhopadhyaya has been conducting a Project on *Tattvacintāmaṇi* of Gangeśa in the Department of Philosophy at Jadavpur University. Academy of Sanskrit Research, Melkotte, (Karnataka) has already done substancial work in this field. Projects on *Mīmāṁsā* and *Amarakośa* have been completed by this Academy and *Kriyā*-project, on the *Tiñanta*-section of *Vyākaraṇa*. The Sanskrit Department of Dr. Harisingh Gour University (Sagar) is also going ahead with its programme of preparing data-base on *Alaṅkāraśāstra* and *Nyāya*-texts. Programmes on *Arthālaṅkāras* and *Tarkasaṁgraha* have already been completed and a data base of Vāmana's *Kāvyālaṅkārasūtravṛtti* is also complete.

A Project - CASTLE is being carried on under the guidance of Shri J.V. Singh at Lal Bahadur Shastri Sanskrit Vidyapeeth, Delhi, covering some of the systems of *Vyākaraṇa*. Attempts are also being made to utilise these systems for Machine Translation.

A Computerised Dictionary of Sanskrit is under progress at Sampurnanand Sanskrit University, Varanasi. A data base on *Nirukta* is being prepared at Gurukul Kangri University, Haridwar. The

Sanskrit Vidyapeeth at Tirupati has taken up emphasis on Semantics, Sanskrit *Vyākaraṇa* and *Mīmāṁsā* under the programme of Computational studies. Shivamurthy Swami at Tarala Balu Kendra, Banglore has prepared a software "*Gaṇakāṣṭādhyāyī*" on Pāṇinian system, where *subanta*, *tiñanta*, all the *Sūtras* of *Aṣṭādhyāyī* and *Amarakośa* have been recorded. Several scholars are engaged in preparing similar programmes. The *Deśika* Programme prepared by C-DAC is particularly useful.

Programmes based on knowledge representation techniques of Pāṇini are being attempted in some of the Universities outside India. The Indiyana University, USA, has started computerised analysis of various categories in *Navya-nyāya*. George Cardona at Pennsylvania University has already prepared a complete record of Pāṇinian researches and *Aṣṭādhyāyī*. GISTNIC (General Information Service Terminal Informative Centre) Hyderabad and Birala Science Centre, Hyderabad have come forward with very useful programmes on *Vāstuśāstra* (Architecture), *Dhātuvijñāna* (Metallurgy), *Āyurveda* (Medicine) and other technical subjects. The Indira Gandhi National Centre for Arts has devoted attention to *Nāṭyaśāstra*, classical and folk arts and crafts with the same viewpoint. It has completed a Computer record of *Gītagovinda* with miniature Paintings.

More than 250 theses and dissertations have been submitted in Universitties and Research centres all over India, dealing with the application of computer science for study of various disciplines in Indology.

An increasing awareness with regards to the practical aspect of Computer Science for study, preservation or record of *śāstras* can be experienced at various Conferences or Seminars that have been organised in the last decade. Special sections were devoted to Sanskrit and computer in the VIIth, IXth and Xth World Sanskrit Conferences, held at Leiden, Melbourne and Banglore respectively. Dr. Ashok Aklujkar and Dr. Madhav Deshpande

presented their programmes at the Leiden Conference. They were more concerned with presentation of Sanskrit texts in *Devanāgarī* through computer. The emphasis in the Melbourne Conference however shifted to the presentation of *Śāstras* in a more coherent and systematic way through computer. Shiv Murthy Swami presented his programme on *Vyākaraṇa* in this conference. The section devoted to computer at Banglore conference was largely attended and always remained charged with a curious interaction between experts working with computers and the scholars trying to understand the technicalities of the achievements made by them. A glance at the selective titles of the papers presented / demonstrations made in this section can provide an idea of the sort of thinking going on and efforts being carried on at the global level with regards to Sanskrit and computers : *Multilayer Hypertext Model for the Historical Monument's Database* - Alexander A Stolyarov (RUSSIA), *Karnaugh maps and Panini* - Sampat Kaniya Kannan (INDIA), Making an Inference Support Tool for Sanskrit Studies ? - Lars Martin Fosse (NORWAY), *Computational Procedures through Sanskrit texts with special Reference to Interation*/Recursion-Chandragupta S Warnekar (INDIA), Is *Numerical Representation of Inflection worthwhile* ? - Saraswati N Balasubrahmanyam (IN DIA), A Multimedia Database on Temples of Karnataka - Pierre-Sylvain Filliozat (FRANCE), *Āyurveda Computer Resource Database*-Peter Freund /Jon Konhaus (USA), *Hypertext Mark-up language, Nirukta, and Bhāṣya Electronic Methodology for Scientific Analysis*-John Robert Gardner (USA), *An Inventory of nominal Compounds in Mahābhārata* 12.321-339 (the *Nārāyaṇīya*) -Peter Schreiner (SWITZERLAND), *Gaṇakāṣṭādhyāyī -A Software on Pāṇini's Sanskrit Grammar.* Shivamurthy Swamiji (INDIA), *The Chrono-Mytho-Poetics of Vedic Hypertext*- Mikhail Mikhailov (BELARUS), *Automatic derivation of Sanskrit Verbs as applicable to Computers in Natural Language Processing* - Vanitha Ramaswamy (INDIA), *An Experiment Using a Computer to Re-*

move Sandhi Modifications from the Text of the Bhagavad Gītā - Ralpha Bunker / Jon Konhaus (USA), *An Analysis of Sanskrit compound with computer* - Satya Pal Narang (INDIA), *Vedic Multimedia*-Frederick M Smith (USA), *Computer and Sandhi : Problems and Rectifications*-Kaushalendra Pandey (INDIA), *Report on the Cologne Digital Sanskrit Lexicon Project*-Dieter B Kapp (GERMANY), *Compiler-Designing for Sanskrit*-Vrashabh Prasad Jain (INDIA), *Saṅgaṇakasyopayogadṛṣṭyā chandasām punarvyavasthāpanam*-Narayana Dash (INDIA), *An Experiment using a computer to remove sandhi modifications from the text of the Bhagavad-Gītā*-Thomas Malten (GERMANY), *Saṁskṛtam saṁgaṇakavijñānam ca*-Baneshwar Pathak (INDIA).

Computational models for Sanskrit *Śāstras* and śāstric models for computer these two themes have been compicuous at various seminars and conferences in India also.

The Academy of Sanskrit Research Melkote organised a Seminar on "Knowledge Representation in Sanskrit and Allied Semantic Theories" at Banglore on 6th and 7th March of 1993. The Seminar was attended by a large no. of Computer Scientists and traditional Sanskrit Pundits and modern scholars. The inter-relations of Indian Semantic theories, particularly *Śabdobodha* and NLP especially figured during the deleberations. The proceedings of this seminar have been brought out by the Academy under the title *"Sanskrit, Computer and Basic Linguistics"*. Another Seminar on use of Computer in the teaching and Research of Sanskrit with reference to Artificial Intelligence and Indian Linguistics was held under the convenorship of Dr. K.C. Dash at Sri Jagannath Sanskrit Vishvavidyalaya, Puri. Articles presented in this seminar have been edited by Dr. Dash in the volume *"Sanskrit and Computer"* which comprises an exaustive editorial note dealing with the changing perspectives of śāstric studies with the interaction of mod-

ern technology. The articles collected in this volume deal with *Vyākaraṇa*, *Nyāya*, *Mīmāṁsā* and *Alaṅkāraśāstra*.

It was in this background that the Sanskrit Department of Dr. Harisingh Gour University, Sagar organised a National Seminar on "Re-organisation of Sanskrit *śastras* with a view to prepare their computational Data-base" under Special Assistance Programme (SAP) financed by the University Grants Commission. *Vyākaraṇa*, *Nyāya* and *Kāvyaśāstra* - these three disciplines were taken up for detailed discussion. Some of the scholars presented the programmes evolved by them on Computer.

Despite the initial enthusiasm generated by the encounter of traditional scholarship with the machine, no major breakthrough has so far been achieved for applying śāstric techniques in Computer-based knowledge. However, the efflorescence vibrates with immense possibilities and the utility of the attempts made in this direction cannot be denied. We hope that the publication of this volume will be another step ahead in a right direction and will strengthen the efforts being made towards re-organisation of our śāstric traditions.

Makara Saṁkrānti **Radhavallabh Tripathi**
14-1-1998

CONTENTS

1

RE - ORGANISING THE CATEGORIES OF *NYĀYA-VAIŚEṢIKA*

Bachchulal Avasthi

I

Bhagavān Kaṇāda introduces the *Vaiśeṣika* school of thought by the first aphorism :

अथातो धर्मं व्याख्यास्यामः ।

(*V.S.*, 1.1.1)

i.e. Now, Let us examine (and enumarate) the *dharma.* Then he goes on to state :

धर्मविशेषप्रसूताद् द्रव्यगुणकर्मसामान्यविशेषसमवायानां पदार्थानां साधर्म्यवैधर्म्याभ्यां तत्त्वज्ञानान्निःश्रेयसम् ।

(*V.S.*, 1.1.4)

i.e. *Niḥśreyasa,* the highest goal is achieved by *tattvajñāna* of the (six) elements viz. *dravya* (matter), *guṇa* (property), *karma* (action), *sāmānya* (generic property), *viśeṣa* (differentiating individuality) and *samavāya* (inherence) on account of their *sādharmya* and *vaidharmya* (i.e. homogeneousness and heterogeneousness of properties).

In this *kaliyuga* (era of materialism) people feel quite satisfied by the exploration and investigation of the elements only on the ground of their cause and effect. Then the question arises : Is there anything to get attracted by *dharma* and / or *niḥśreyasa* ? To that we say, in the Kaṇāda school of thought, *dharma* is being defined in a two-fold manner :

(a) यतोऽभ्युदयनिःश्रेयससिद्धि स धर्मः।

(*V.S.*, 1.1.2)

i.e., That is *dharma* from which prosperity is gained and the highest goal is achieved.

(b) The second definition of *dharma* refers to the homogeneousness and heterogeneousness of the properties of elements. For instance :

यस्याधारतानिरूपिताऽऽधेयता यस्मिन् प्रतीयते स प्रतियोगी तस्यानुयोगिनो धर्मः ।

i.e., That is called *dharma* of the particular *anuyogī* (successor positive) whose substratumhood is being indicated by the superstratumhood of the *pratiyogī* (counter-positive / predecessor). For (in the example of *ghaṭavad bhūtalam*) the ground is jar-possessive, the *ghaṭa* is a *dharma* of *bhūtala*, since the *ghaṭa* is *superstratum* of the substratum *bhūtala*, and thus, the *bhūtala* is called the *dharmin*. In this context *ghaṭa* is *pratiyogī* with reference to the *bhūtala*, which is the *anuyogī*. It is in accordance with this *sādharmya* and *vaidharmya* of *dharma*, we have to discuss on the elements here.

Now, let us introduce the dialogue on this issue with the question : Whether (a) the *avacchedakatā* (delimitting property) which is indicated by the *avacchedyatā* that resides in *dravya* is called *sādharmya* of *guṇa*, *karma* and *sāmānya* OR (b) the *avacchedyatā* (the property that is to be delimitted by) that resides in *dravya*, which is being indicated by the *avacchedakatā* that resides atleast in any one amongst the *guṇa*, *karma* and *sāmānya* is called *sādharmya* ?

To this (question, it is said) that the counterpositiveness (*Pratiyogitā*) which is delimitted by the relation called inherence is found in *sāmānya* (generic property), the *anuyogitā* which is

indicated by that *pratiyogitā* is called the *sādharmya* of *dravya, guṇa* and *karma*. Ofcourse, there does exist *sādharmya* amongst all the elements on account of their intrinsic property viz. elementness (*padārthatva*) in each and every element : Moreover, all matters (*dravya*) have *sādharmya* due to their delimittedness of the *sāmavāyikāraṇatā* (inherent causal property). Similarly, the *sādharmya* of *guṇa* and *karma* can be established on account of their *asamavāyikāraṇatā* (the state of causal factor, which is different from *samavāyikāraṇa* but which is intrinsically associated with the *samavāyikāraṇa*). Likewise, the *vaidharmyas* of the elements are to be treated or defined. Without taking the *vaidharmyas* into account, the six-fold classification of elements in the *Vaiśeṣika*-school of thought will not be possible.

There is also another definition of *dharma* found (in *dharma śāstras*) , which states that : That is called *dharma* which is the property of the self being product of the meritorious activities. Without this, the above said *sādharmya* as well as the *vaidharmya* can not exist at all. And therefore, not every individual can gain the *tattvajñāna*, otherwise every-body would be qualified for the *niḥśreyasa*, the highest goal.

II

प्रमाणप्रमेयसंशय-प्रयोजन-दृष्टान्त-सिद्धान्तावयवतर्कनिर्णय-
वादजल्पवितण्डा- हेत्वाभासच्छलजातिनिग्रहस्थानानां
तत्त्वज्ञानान्निः- श्रेयसाधिगमः...... ।

(*N.S.*, 1.1.1)

i.e., The *niḥśreyasa* is being acheived by *tattvajñāna* of the (sixteen elements, viz.) *pramāṇa, prameya, saṁśaya, prayojana, dṛṣṭānta, siddhānta, avayava, tarka, nirṇaya, vāda, jalpa, vitaṇḍā, hetvābhāsa, chala, jāti* and *nigrahasthāna*.

Here, excluding *pramāṇa* and *prameya*, the rest of the fourteen elements starting with *saṁśaya* etc. have greater significance in the *Nyāya* school of thought. *Pramāṇa* and *Prameya* are to be excluded, because they are common in all the schools of thought. Now, the *saṁśaya* (doubt) becomes the foremost element amongst the remaining fourteen elements. It is because the validity of perception also depends upon inference and for that the knowledge of *pakṣatā* is essential which again depends upon *saṁśaya*. It must be noted in this context that the followers of the school of Kaṇāda (i.e. *Vaiśeṣika*) and Gotama (i.e. *Nyāya*) adher to the theory called *parataḥ prāmāṇya*. In that case the *saṁśaya* is invalidated by itself.

Udyotakara has accepted the significance of *saṁśaya* and that indicates its importance. Ofcourse, nobody doubts his having doubts. Thus, Gotama says :

संशये नासंशयो नात्यन्तसंशयो वा।

(*N.S.*, 2.1.6)

i.e. Neither there would be no doubt on doubt nor any extra-doubt on doubt.

Also;

सर्वपरीक्षाव्यापित्वात् प्रथमं संशयः परीक्षितः।

(*N.S.*, (*Bhāṣya*) on 2.1.7)

i.e. The doubt is being examined first, since, it is pervasive of all examinations.

Now, the fundamental question may be raised that : What is *Nyāya* ? The reply is : The conclussive assessment is called *Nyāya*. That essentially is in the form of inferential cognition. Without the inferential cognition even the perceptual cognition is treated as unvalid. It need not be mentioned that the inferential cognition is caused by means of inference. The elements viz. *siddhānta* and

avayavas are two pivotal elements of inferential cognition. The pre-requisition to them are *saṁśaya, prayojana* and *dṛṣṭānta* and the post requisite to them are *tarka* and *nirṇaya.* In this manner when these seven elements are examined and assessed thoroughly then only the whole system of philosophy can be grasped.

1. Doubt (*saṁśaya*)

> **समानानेकधर्मोपपत्तेर्विप्रतिपत्तेरुपलब्ध्यनुपलब्धिव्यवस्थातश्च विशेषापेक्षो विमर्शः संशयः ।**
>
> (*N.S.*, 1.1.23)

Doubt is defined as : The wavering judgement (in which the definite cognition of specific character of any one object is wanting) and which arises either (a) from the cognition of characters common to the objects concerned, or (b) from the cognition of the characters that serve to distinguish an object from divers objects, or (c) from the presence of contradictory opinions and the appearing of such wavering judgements is due to the uncertainty non-perceptions.

The doubt at times, found to be imposed one or assumed one, since, in the system of *Nyāya* philosophy, even an element which is established by a different means of valid cognition, they wish to re-establish the same through inference. As we have seen above that the doubt is essential for *pakṣatā,* which is an obligatory for *anumāna.* It is because, the doubt is found to be in each and every instance of *anumāna*, where there is the non-ascertainment of *siddhi*, which is again accompanied by absence of any desire to infer (*siṣādhayiṣāviraha*).

2. Motive (*prayojana*)

यमर्थमधिकृत्यप्रवर्त्तते तत् प्रयोजनम्।

(*N.S.*, 1.1.24)

Motive (*prayojana*) is that object, aiming at which one acts. Even with regard to a doubtful object nobody gets motivated without any doubt. Therefore, ascertainment of *prayojana* is essential in the system of *Nyāya*.

3. Example (*dṛṣṭānta*)

लौकिकपरीक्षकाणां यस्मिन्नर्थे बुद्धिसाम्यं स दृष्टान्तः।

(*N.S.*, 1.1.23)

That is called example with regard to which both parties, the ordinary man and the trained investigator - entertain similar ideas .

4. Doctrine (*Siddhānta*) :

तन्त्राधिकरणाभ्युपगमसंस्थितिः सिद्धान्तः ।

(*N.S.*, 1.1.26)

Doctrine is a theory or conviction in regard to the exact nature of a thing dealt with by philosophy.

The word *tantra* in this *sūtra* means, the school of 'philosophy' standing for the teaching in connection with things connected with one another. *Adhikaraṇa* means the conviction resting on implication and not on direct assertion. *Abhyupagama-saṁsthitiḥ* is hypothetical acceptance of an opinion not duly ascertained (and not directly stated in philosophy).

5. Factors of Reasoning (*avayava*)

प्रतिज्ञाहेतूदाहरणोपनयनिगमनान्यवयवाः ।

(N . S . , 1.1.32)

(a) Statement of proposition, (b) statement of probans, (c) statement of the example, (d) reafirmation and (e) final conclusion - these are the five factors of reasoning.

6. Hypothetical Reasoning (*tarka*)

अविज्ञाते तत्त्वेऽर्थे कारणोपपत्तितस्तत्त्वज्ञानार्थमूहस्तर्कः ।

(*N.S.*, 1.1.40)

When the real character of a thing is not well-known, there is put forward, for purpose of ascertaining that real character, a reasoning (in support of a certain conclusion) which indicates the presence of proof (showing the undesirability or absurdity of a contrary conclusion) and this is called "Hypothetical reasoning".

7. Definitive Cognition (*nirṇaya*)

विमृश्य पक्षप्रतिपक्षाभ्यामर्थावधारणं निर्णयः ।

(*N.S.*, 1.1.41)

When there is an ascertainment of the real character of the thing after duly deliberating over the two sides of the question - an argument in favour of a certain conclusion and also that in its confutation we have what is called definitive cognition (*Nirṇaya*).

These are the seven elements, which essentially form the central theme of the *Nyāya* system of philosophy.

Then the question may be asked : Why Gotama has mentioned the two primary elements viz. *Pramāṇa* and *prameya* in the beginning of the *Nyāya-sūtra* ? The reply is - the glory of *Nyāya -Śāstra* lies in the exploration of valid cognition through the examination of the essential characters of the elements. The *pramāṇas* are examined initially because, the ascertainment of the elements arise from the means of valid cognition. Therefore, the means of valid cognition (*pramāṇa*) is used in ascertainment of the seven elements. This is an established fact that the validity of the cognition comes latter to that. The treatment of seven elements after the examination of *nirṇaya* should not be doubted. Desire of inference gets satisfied only after the true knowledge of those elements that is what is the current position of the topics of debate in the school of *Nyāya śāstra*.

Note : The translation of The *Nyāya sūtras of* Gautama by M.M. Ganganath Jha is followed for translating the *sūtras* and *bhaṣya* statements quoted in this article. The article has been translated from original sanskrit by Dr. A. Dash.

2

LOGICAL PRINCIPLES IN *NAVYA-NYĀYA*

Keshab Chandra Dash

This paper attempts to delineate the following aspects of *Navya-Nyāya* for computational purpose.

1. Formalisation

A type of meta-language has been developed in *Navya-Nyāya* to explain and construct the logical principles and procedures in general. The process of formalisation takes its basis from certain abstract notions and properties ascribed to an entity or element. The formalised language is employed mainly to represent the conceptual functions. Instead of using symbols like 'X & Y' etc. *Navya Nyāya,* since it owes its origin to an oral tradition, has used the terms like *tadvat* .... *tanniṣṭha* ....., *tadavachhinna* ..... *tannirūpita* ...... and such other terms in its self-styled approach.

2. Inferential Mechanism

The micro-form of inferential mechanism in *Navya Nyāya* is born out of the causal explanations which take the forms *yatra yatra* ... *tatra tatra* "wherever ... there is " ... and *yat yat* .... *tat tat* "whatever is .... is." This, in other words, points to the process of valid inferential knowledge taking two mounts namely *hetu* 'probans' and *sadhya* 'probandum' and *vyāpti* their relation i.e., invariable concomittance. The idea is formalised as : " There is H (*hetu*) such that if H, then S (*sādhya*)."

2.1. Process of Validation

To validate the inferential knowledge the *Naiyāyikas* have conceived five-membered syllogism which may be regarded as a standard format of inferential information. This is popularly known as *pañcāvayava* in the following manner :

i) *pratijñā*	Hypothesis / Assertion
ii) *hetu*	Reason
iii) *udāharaṇa*	Example
iv) *upanaya*	Application
v) *nigamana*	Conclusion

The purpose of each part of the process may be understood as follows :

Hypothesis : This presents the problem in the form of an assertive expression.

Reason : It supplies the basis or probans for inference.

Example : It informs about the invariable relation of reason to hypothesis.

Application : It points to the applicative domain.

Conclusion : It establishes the fact.

The examples may be furnished for all such parts as :

i) The body possesses 'an order of arrangement'.

ii) Besause it has a structure.

iii) Whatever possesses a structure possesses 'an order of arrangement' as in the case of an *Organisation* (which is proven to have possessed an order of arrangement).

iv) So does this, i.e. this body has an order of arrangement (which is invariably connected with structure).

v) Therefore it does so, i.e. this body too has an order of arrangement.

2.2. Causal Explanations

In early school of *Nyāya* the causal connections are explained mainly in three ways. Vātsyāyana, the author of *Nyāyabhāṣya* gives an account of the concepts in the following manner:

i) *Pūrvavat* : The effect is infered from its cause

(XY) : Y is caused by X
X : there is X
------ : therefore (hypothesize)
Y : Y

For instance, *(meghonnatyā vṛṣṭiḥ)* from rising cloud (it is inferrred that) it will rain.

ii) *Śeṣavat* : The cause is inferred from its effect.

(XY) : X causes Y
Y : there is Y
------ : therefore (hypothesize)
X : X

पूर्वोदकविपरीतमुदकं, नद्याः पूर्णत्वं शीघ्रत्वं च दृष्ट्वा स्रोतस्यानुमीयते भूता वृष्टिः।

On perceiving the water of the river as different from what it was before (and further seeing) the fullness of the river and swiftness of current it is inferred that there was rain.

iii) *Sāmānyato dṛṣṭa* : This points to some sorts of indication and possibility.

I (XY) : X indicates Y
X : there is X
---------- : therefore (hypothesize)
Y : Y

If X is possible cause of Y, and
if X is true
Then infer Y.

This explanation stands very close to *śeṣavat anumāna* which is treated as an abductive inference in AI.

3. Manipulation of Qualifiers

Navya Nyāya does not speak directly in terms of quantification as such. The situation, however, is handled with the help of some techniques like *avacchedaka* 'delimitor' and the terms like *sarva, sakala, yāvat* 'all' etc. Moreover, when the question of quantification comes *Naiyāyikas,* at first, consider the situational factors like *locus, delimitor, relation* and *absence* etc. For instance, the expression *parvato vahnimān* 'Mauntain is fiery' may be explained in both universal and existential proposition-forms.

Universal proposition : V X F (x)
' For every X, it holds that
X is fiery. '
Existential propositon : x F (x),
it holds that x is fiery.'

In order to ensure clarity in these cases the *Naiyāyikas* ask the following questions:

i) किमत्र पक्षतावच्छेदकावच्छेदेन साध्यत्वम् ।

Is fire asserted to occur wherever mountain-ness occurs ?

or

Is the occurrence of fire asserted to be delimited by mountain-ness ?

If the answer is 'yes' and above contention is accepted then it is a universal proposition.

ii) किमत्र पक्षतावच्छेदकसमानाधिकरण्येन साध्यत्वम् ?

Is Fire asserted to occur in some/a mountain wherever mountain-ness occurs ?

If the answer is 'yes' then it is taken as existential-proposition.

This may further be streched for more clarifications with *avacchedaka* technique specifying spatial, temporal and relational measures.

For instance,

" एतद्देशावच्छिन्नैतत्कालावच्छिन्नसंयोगसम्बन्धावच्छिन्नः पर्वतो बह्निमान्।"

The mountain is fiery with the delimiting relation 'contact' further delimited by spatial measure 'this place' and temporal measure 'this time'.

4. Truth Functions

Navya Nyāya has recognised logical connectives like *and, or, if ....then* and *not* on its own way which may be regarded as truth functional connectives.

i) *Ubhaya* : 'And (conjunction = &)

The term *ubhaya (ubhayatra)* points to conjunctive function in many cases. The principles like *eke sattve dvayam nāsti* which means ' if only one is true (i.e. the other is false) the whole totality is false ' is applied to have the 'and function' in underlying structure. This may be understood as :

$$X \& Y = (X \& Y)$$

The principle of *ubhayābhava* is also applied in such a situation.

ii) *Anyatara* : 'Or' (Alternation/Disjunction = V)

The term *anyatara* actually points to that which is one of the two. But the principle which holds good in this situation is : **"विशिष्टाभावे क्वचिद् विशेषणा-भावस्य क्वचिद् विशेष्याभावस्य क्वचिदुभयस्य"**. This means, 'When there is an absence of a whole signified by X and Y then sometimes it signifies an absence of X, sometimes of Y and ' or sometimes of both X and Y. '

This may be put in the following manner. (X & Y) = (is equivalent to) [(-x) V (-y) V~(x & y)]. More often, *VA* is also used in the sense of alternation. For instance, *sthāṇurvā puruṣo vā*, This is either a man or a stump '.

This implies that if something is stump then it is not a man and if something is a man then it is not a stump.

iii) *Yadi tarhi* : ' if..... then' (=)

This concept stands back to the notion of *vyāpti* 'invariable concomittance' and is related available,

But this function is mostly stated in negative form such as : ~S.

iv) *na/nāsti* : no/not (denial = ~)

This has been described mainly in two ways in *Navya Nyāya* such as ; *Saṁsargābhāva* 'relational absence' and *anyonyābhāva* 'mutual absence/difference'. As far as the logical function

is concerned these are described as :
absence of x = ~ x
absence of absence of x = ~ ~ X (=x)
similarly difference is stated as :
difference from x = = x
difference from difference from x = = =

5. Relational Functions

Navya Nyāya has recognised several kinds of relations to deal with both ontological and linguistic problems. The theory of relation in *Navya nyāya* attaches more importance on the cognitive model of an expression which ultimately yields a relational structure. I have discussed some of the issues elsewhere in my book *Relations in knowledge Representation*, 1991.

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3

PARIṢKĀRA PRAKRIYĀ IN *NAVYA NYĀYA* : THE MODEL, THE METHOD AND ITS CONCEPTUAL REORGANISATION

Achyutananda Dash

The *Nyāya* system of philosophy has developed highly sophisticated techniques of knowledge analysis (KA) and present the same in most unambiguous manner, so that the entities concerned or concieved are apprised to the mind in a very certain, distinguished and exact form. The Naiyāyikas are seriously concerned on the nature of knowledge and its structural presentation with the analysis from macro to micro level. This process of KA is known in the system as *pariṣkāra prakriyā* (PP). In the PP, the *Naiyāyikas* introduce many technical concepts and terms like the concept of *avacchedakatā, pratiyogitā, anuyogitā, viṣayatā, viṣayitā, prakāratā, viśeṣyatā, kāryatā, kāraṇatā, dharmitā, paryāpti* and so on, which are used in the system either as *padārthas* (entities) or as *sambandhas* (relation between the entities). These terms and concepts are developed in order to formalize the knowledge base in the system of *navya nyāya*. These have been used in the system quite frequently and systematically with the help of some well defined methodologies which intend to present the knowledge in a cristal-clear manner and the result of this process (viz. PP) is that it leaves no ambiguity at any stage. On the other hand, it must be noted here that at the very outset it appears to be very complex and thus, some uninitiated scholars in the field feel that it is ambiguous. Complexity has nothing to do with ambiguity. On the contrary, complexity is regarded as the product of an

on-going and long-term scientific investigation based on some developed theoritical background. Therefore, the PP in *navya nyāya* is treated to be highly sophisticated and due to the extensive use of technical terms and concepts, the language has an artificial look, i.e., it appears to be quite different from that of the classical Sanskrit. In other words, the system of *navya nyāya* is unique in respect of its language, system, process, methods, model; and there are some formula in the language of PP, which are yet to be identified and discovered. The structure and the stylistics of the *navya nyāya* language is to be formalized and at the same time the methodology and the system of the PP is to be presented in a modular form so that the modern mind can grasp the ideas without going through the traditional hotch-potch. A little research in this direction has been done and the conceptual frame work is yet to be designed. Unless we know the conceptual frame-work behind the *navya nyāya* language of PP, we just can not grasp or appreciate the noble system of philosophy in general and the method of KA in particular. The knowledge analysis in the system of *navya nyāya* seems to be complex only because it follows the *pariṣkāra prakriyā* (PP) which follows a wel-defined method, a definite model and certain high-tech formulae. Here it is a humble beginning of research in this direction.

Before we attempt to explore in identifying some of the models, methods and formulae of the scientific endeavour of PP in *navya nyāya*, it will be worth examining the very general notion of a scientific enterprise in one hand and the model of science on the other.

"A scientific enterprise -- says V. Shekhawat -- is strictly scientific if and only if it is clear about its goal, method and theory at the same time."[1] Therefore, there are at least three dimentions of any scientific enterprise in order to see the *cāritārthyam* (fulfilment of its purpose) in any human endeavour; they are **goal-inquiary,** the **method-inquiary** and the **theory-inquiary**. A

scientific enterprise, on the other hand , with a single well- defined goal necessitates classification of causes at different levels, thus, necessitating several complementary theories, all being knit together in a single enterprise .

The complexity of such enterprises arise not by virtue of ambiguity of the goal but rather by virtue of the complexity of the knowledge base itself involving diverse kind of facts at different levels.

But clarity at every level of the cognitive enterprise, helps a great deal in classification and analysis of goals themselves determining the pursuit of goals spurring the systematisation of relevent methods and theories. This saves mishaps, crises and lost directions in the vast domain of specific field of interest.

The *Navya Nyāya* system of philosophy for instance has a great deal of synthesis in it from every aspect of a scientific enterprise. It is being advocated by the seers in the direction of the goal inquiry, which has developed the method-inquiry in the form of *Pariṣkāra prakriyā* (PP) and that expanded the field of the theory-inquiry. The goal is well-known,–but to-day, in the advanced scientific era, we have to re-investigate the models and the theories, in the light of multiple discoveries of many modern sophisticated techniqes and tools of research. The very basic model of scientific enquiry in the PP of *Navya Nyāya* can be termed as ULP-model , the *Uddeśa-Lakṣaṇa-Parīkṣā* model. Vātsyāyana says in *Nyāyabhāṣya : trividhā cāsya śāstrasya pravṛttiḥ uddeśo lakṣaṇam parīkṣā ceti . tatra nāmadheyena padārthāmatrasyabhidhānam uddeśaḥ tatroddiṣṭasya tattvavyavacchedako dharmo lakṣaṇam. Lakṣitasya yathālakṣaṇam upapadyate na veti pramāṇair avadhāraṇam parīkṣā.*[2]

The theory of classification in the system of *Nyāya Vaiśeṣika* school of philosophy systematises the conceptual frame-work in such an exceptionally scientific manner that the generation, presentation and appraisal of the model of PP hardly leaves any scope of doubt at any level. The sixteen fold classification of the *Padārthas* by Gotama the six-fold classification of the *Padārthas* by Kaṇāda and the seven-fold (which may be called the standard classification) by latter exponents of *Nyāya-Vaiśeṣika* school of thought are considered to be the final by almost all schools of Indian Philosophy. The textual organisation of these *padārthas* by Annam Bhaṭṭa and Viśvanātha Pañcānana have been considered to be the land mark in the teaching and learning process of the *Nyāya-Vaiśeṣika* school of thought. But to my mind, if we closely examine the textual organisation of Annam Bhaṭṭa and Viśvanātha Pañcānana, we feel that at certain stage both the authors were sceptical about their own organisation of the text. For instance, Annam Bhaṭṭa strictly follows the *sapta padārtha* order in organising his work called *Tarkasaṁgraha,* which is a very popular and primary work in the system of *Nyāya-Vaiśeṣika* school of thought. Moreover, it is read widely and considered to be the best work to introduce the system to pupils at the initial stage. But the topics introduced in *Tarkasaṁgraha* are not well-knit each-other . It is because, Annam Bhaṭṭa had problems in introducing the *pramāṇas* -- the very fundamental topics in the school of logic -- which are not included in the *sapta padārthas.* In other words the *sapta padārthas* are the seven-fold classification of the *prameyas* and it is but obvious that *pramāṇas* can not be included under the discussion of *prameyas.* Therefore, he had to introduce the *pramāṇas* under the *guṇa*-section, especially on the classification of *buddhi* the 16th *guṇa.* He was forced to discuss on all the relevent and co-related *padārthas* of *pramāṇas viz. kāraṇas, sannikarṣas, hetvābhāsas, śakti, sahakāri kāraṇas* of *śābdabodha* etc. which are loosely connected

with *prameyas*. Moreover, it may be noted that the *pramāṇa* section consists of at least 50% of the complete text. By the end of the *buddhi parīkṣā*, one is at a loss to grasp that he was learning one of the 24 *guṇas*. This vast section of *pramāṇa pariṣkāra* could have been presented as an independent section all togather in the text. It is therefore, in our view, the organisation of the text of Annam Bhaṭṭa (i.e. *Tarkasaṁgraha*) is not a very good organisation. It can be re-organised in a scientific manner.

The textual organisation of *Karikāvalī-Muktāvalī* (KM) by Viśvanātha Pañcānana is niether very logical nor appreciable. There are total 168 *kārikās* in KM and out of that 2-50 *kārikās* are devoted to define and discuss on the *padārthas* in general and eight *dravyas* (*pṛthvī* to *ātman*) in particular. With relation to *ātman* the eighth *dravya*, the *pramāṇas* are introduced and explained. Viśvanātha Pañcānana possibly thought of introducing the knowledge (*jñānam* or *buddhi*) as the *viśeṣa-guṇa* (special quality) of *ātman* and felt appropriate to introduce *pramāṇas* with relation to *jñānam* (*pramā*) which are means of valid cognition. There are 34 *kārikas* (51-84) devoted to four *pramāṇas*. Thereafter, the last *dravya* viz. *manas* is introduced in 85th *kārikā*. Then, from 86th *kārikā* till the end of KM i.e., 168th *kārikā* the *guṇas* are defined and discussed along with some auxiliary (*avāntara*) topics. The main *padārthas* like *karma, sāmanya, viśeṣa, samavāya* and *abhāva* are introduced in between the discussion of the first eight *dravyas*. Therefore, it can be said with certainty that the whole of KM is highly dis-organised text.

In our view, the textual organisation of the *Nyāya-Vaiśeṣika* school of thought should be done following the P^4 - model or PPPP-model. It means, *pramāṇa-prameya-pramiti* and *pramātā*- model of textual organisation by which , according to Vātsyāyana, the whole

of the *arthatattva* comes to an end. It means, the conceptual framework of *Nyāya-Vaiśeṣika* school of philosophy should be re-designed, having at least 4 books / main sections viz.:

i) *Pramāṇa* -Section (to include all the four *pramāṇas*),
ii) *Prameya* -Section (to include all the 7 categories),
iii) *Pramiti*-Section (to include the *jñāna and prāmāṇya-vāda*),
iv) *Pramātā*-Section (to include the knower and his necessary qualifications etc.).

Once the textual organisation is done, we have to think on the conceptual reorganisation of PP. On the basis of the proposed reorganisation of the text based on p^4 - model the PP will be atleast on four levels viz. :

i) P_1P = *pramāṇa-parīkṣā*
ii) P_2P = *prameya-parīkṣā*
iii) P_3P = *pramiti-parīkṣā*
iv) P_4P = *pramātā-parīkṣā*

On the basis of the fore-said ULP-model of *navya nyāya*, the PP therefore can broadly be classified into three levels :
i) *Uddeśa-pariṣkāra*
ii) *Lakṣaṇa-pariṣkāra*
iii) *Parīkṣā-pariṣkāra*

The Naiyāyikas use the PP in order to explain and define the nature of almost all the logical and ontological entities in such a manner that no further ambiguity is raised at any level or context. Only at this stage, the PP plays its crucial role in making the *navya nyāya* language more logical, more distinct and more

elucidating in nature by which the most amazing form of language came out that any human brain can ever design.

Uddeśa-Pariṣkāra

The whole of the conceptual frame-works in the system of *navya-nyāya* are presented at the first instance of *uddeśa* stage and that is done mostly by a single term. Therefore, the *uddeśa* is defined as : *nāmamātreṇa vastu saṁkīrtanam*, i.e., mention of the entity only by its name. The ULP-model of Indian scientific enterprise begins with the naming of the entities that are to be defined, to be examined or to be investigated upon. The first step in the process, as we know is naming which traditionally is known as *uddeśa* . Though the naming is generally done by a single term some time it is done with a compound / complex term. The complex term is again used only for clarity of the concept and that need not be treated as the nominal definition of the concept. As and when, the *Naiyāyikas* use this methodology to present this concepts we would prefer to call it the first level of PP which we have mentioned as *uddeśa-pariṣkāra.* Let us see the following terms for instance, which are used in the first order PP :

1) *pramā = yathārthānubhavaḥ*
2) *śābdabodha = vākyarthabodha, vākyārthajñānam, śabdajñānam, vākyārthadhīḥ, śabdadhīḥ, saṁsargabodhaḥ, anvayabodhaḥ* etc.

If we take the first instance into consideration we find that the term *pramā* has another name called *yathārthānubhava.* But some time it is confused by many to be the nominal definition of *pramā.* There are many such terms or complex expressions found in the *navya nyāya* works which come under our first order PP which we call *uddeśa-pariṣkāra.* In the process of PP we must iden-

tify such terms so that no further confusion ever arise while dealing with the *lakṣaṇa-pariṣkāra.*

Lakṣaṇa-Pariṣkāra

Theorization of the concepts are done at the *lakṣaṇa-pariṣkāra* level. The *lakṣaṇa* in the system of *navya nyāya* school of philosophy should not be taken as mere definition of the term . It is rather the concrete and conspicuous form of the concept that has come to be at the end of a long process of varification and judgement. Thats' how the *lakṣaṇa* is defined as : *dūṣaṇatraya-rahito dharmaḥ lakṣaṇam*, i.e., the conceptual statement which is devoid of the three possible defects viz. *ativyāpti, avyāpti* and *asambhava.* It is therefore, in Indian system of scientific investigation, any item or entity is defined in a manner that the fundamental concept is made clear so that no further ambiguity occures at any stage. Thus, in the process of scientific inquiry utmost care is taken to present the *pariṣkṛta* and *pariniṣṭhita lakṣaṇa* . To get into the core of any subject, one has to concentrate upon such a definition which presents the central idea of the concept. Therefore, the *lakṣaṇa* is otherwise defined as : *asādhāraṇa-dharmavacanam lakṣaṇam.* The Indian scientific traditions in general and the school of *navya nyāya* in particular seem to be very particular and very much careful about the definition. Thus, the *lakṣaṇa-pariṣkāra* is treated as the heart of the Indian scientific tradition.

In the process of *lakṣaṇa-pariṣkāra* many a times the first proposed definition is being expanded so as to make it free from any or all plaussible defects. The definition is proposed atleast on two basic logical back-ground i) Universal Instatiation and / or ii) Existential Instatiation depending uopn the nature of the definiendum. For example :

Pramākaraṇam pramāṇam

is a definition of *pramāṇa* which is considered as a *pramāṇa-sāmānya-lakṣaṇam* i.e., a general / universal definition of *pramāṇa*. We may call such definitions as based on Universal Instatiation because it presents a universal definition applicable to all and only *pramāṇas* . Let us take the definition of *pramā* as an example of the definition based on Existential Instatiation :

pramā or *yathārthānubhava* is defined as : *tadvati tatprakārakānubhavaḥ pramā* . This definition is applicable to each and every instance of *pramā* taken individually into account and where there is atleast one qualificandum and atleast one qualifier and they are related by a logical relation. Such definitions, in our view, are based on Existential Instantiation. That apart, the interesting thing is that following the PP-model, the same definition is further expanded and again expanded so as to incorporate all possible individual instances of the definiendum. Let us, for example, consider the expanded forms of the definitions of *pramā* which are presented as follows :

i) *tadvadviśeṣyakatve sati tatprakārakatvam yathārthānubhavasya lakṣaṇam.*
ii) *tadvanniṣṭhāviśeṣyatānirūpitā tanniṣṭhāprakāratāsālitvam (yathārthānubhavatvam) iti (niṣkarṣaḥ).*

This type of definitions are based on Existential Instatiation, because they cover / define atleast one individual entity at a time and they are not universal in nature. The *tat-prakāraka* and *tad-viśeṣyaka* type of definitions, where the word '*tat*' refers to the entity concerned, come under this class of definitions.

The *lakṣaṇa-pariṣkāra* plays the pivotal role in the *navya*

nyāya system of philosophy. In other words, the system has seen its growth only through the *lakṣaṇa-pariṣkāra.*

Parīkṣā Pariṣkāra

At the *parīkṣā pariṣkāra* stage the concept is examined and verified with the help of ontology. Thus, *parīkṣā* is defined as *lakṣitasya yathālakṣaṇam upapadyate na veti vicāraḥ parīkṣā.* The investigator pays his first attention to explain, define, expand and elaborate on each and every terms used in the *lakṣaṇa-śarīra* and at the same time he intends to find out if any plausible defect is seen in the concept proposed. Then in the process of verification, various types of relevant phenomena are assumed and the concept is applied to them with a view to examine the nature of the entity in one hand and the validity of the concept on the other. Precisely speaking, this is how the conceptual frame-work is expanded. The true and unique nature of Indian logic is found in *parīkṣā pariṣkāra.* Introduction to different arguments for and against the proposed concepts are seen only at this level. Many a times, there are peculiar flag-markers found in the system like *nanu... iticet.. na, evam ca, tathā hi, tathā sati, idam atrāvadheyam, idam atrākūtam* etc. Generally, the fifth-case-ending after the *bhāva-pratyaya* (*tva / tā*) is more frequently used at the end of a sentence to present the argument against the proposed theory. There is a popular maxim in the tradition viz. *sthūṇānikhanana nyāya* which indicates that the confirmation of the concept is done through the examination of the pros and cons. Thus different facets and different aspects of *parīkṣā pariṣkāra* can be traced with more serious exploration into the field of study and research.

Now, let us examine the PP more closely, so that the structure and model of PP can be re-designed. We must, at this stage, define the PP.

1) PP is the viable method of KRS, that represents the knowledge in a scientific model having hierchical structure.
2) In PP, we find one of the entities represented in the knowledge form, appears to be the nucleus.
3) The nucleus is the representative of the integrated whole of PP.
4) The structure of PP is having atleast two strata, i.e,. *artha*-stratum and *sambandha*- stratum.
5) PP is expandable to such a structure which will have multiple strata on the basis of the *dharmas* (properties) being related by their appropriate relations, which might have a look like the layer-carnation.
6) The tradition treats the nucleus as the chief qualificandum (*mukhya viśeṣya*) and rest of the *padārthas* are treated as the qualifiers (*prakāras*).

From these statements we can assume that the knowledge has essentially three components viz. the nucleus, its properties or qualifier(s) and their relation(s). In other words, the PP represents the knowledge or the nature of an entity in the *prakāra-saṁsarga-viśeṣya* model PSV model which is otherwise known in the tradition as *viśiṣṭa-jñāna* . We can call PSV as the basic and standard formula to represent the PP in *Navya Nyāya* . This theory is based on the nature of knowledge itself.

The knowldege (*jñāna*) in *Nyāya* school of Philosophy is presented with a four fold classification, viz.

1. *Pratyakṣa* (Perceptual knowledge)
2. *Anumiti* (Inferential knowldege)

3. *Upamiti* (Comparision)
4. *Śābdabodha* (Sentential knowledge)

These are based on their respective *Pramāṇas* (the valid means of cognition) viz. *Pratyakṣa, anumāna, upamāna* and *śabda*. The perceptual knowledge is again classified into two:

a) *nirvikalpaka*
 and
b) *savikalpaka.*

The *nirvikalpaka jñānam* is defined as : *vaiśiṣṭyānavagāhijñānam.* In contrast to that of the *savikalpakajñānam* which is defind as : *vaiśiṣṭyāvagāhijñānam.* It means, if and only if the knowldege of the nucleus is represented along with its *vaiśiṣṭya* then only it will be treated as *savikalpakajñāna,* otherwise, it will be a *nirvikalpaka* type of knowldege. In other words, the main distinction of *savikalpaka* and *nirvikalpaka* lies with the former having *vaiśiṣṭya* and the latter having no *vaiśiṣṭya* at all.

What is *vaiśiṣṭyam*?

It is defined as : *vaiśiṣṭyam nāma viśeṣaṇam viśeṣyaḥ tayoś ca saṁsargaḥ.* The *vaiśiṣṭya* has invariably the expectancy of atleast two relata and a relation between them. In other words, the knowledge which is presented in the VSV-model (*viśeṣaṇa-saṁsarga-viśeṣya*) is treated as *vaiśiṣṭyāvagāhi jñāna. Viśeṣaṇam*, in knowldege-form, is otherwise known as *prakāraḥ* (*viśeṣaṇa, prakāra ityanarthāntaram*). Therefore, we shall call the VSV-model as PSV-model for unambiguity. *Vaiśiṣṭya* can be classified into two at the first instance :

1) being represented by a simple PSV-Model.
2) being represented by a complext PSV-Model .

We can develop some formulae which will help us to represent the complexities of the PP in the system of *Navya-Nyāya* philosophy. The first formula can be designed / formulated to present the first kind of *Vaiśiṣṭya* in the following manner.

F. 1 : PSV

This is a simple formula to represent a simple type of *vaiśiṣṭya,* where there is atleast one qualificandum being related with its simple qualifier. For example *ghaṭaḥ* as a qualified (*savikalpaka jñāna*) knowldege. The PP of *ghaṭaḥ* is presented as : *ghaṭatvaviśiṣṭaḥ ghaṭaḥ, vaiśiṣṭyam ca samavāyasambandhena.* See the following diagram.

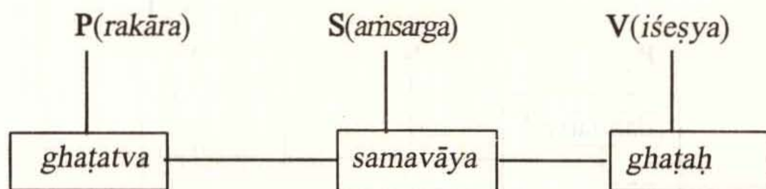


Diagram 1.

Here, in this structure, there are no further complexities intended in KA.

The complexities of the *vaiśiṣṭya* arise due to the properties expressed / found either with the P(*rakāra*) or with S(*aṁsarga*) or with V(*iśeṣya*) or with each and every entity of PSV. The tradition gives the first principle on the complex structure of the *vaiśiṣṭya* as :

P.1. : *Viśeṣye yad viśeṣaṇam tatrāpi viśeṣaṇantaram.*

It means, as and when the qualificand has a qualifier, which again has another qualifier. For instance : *daṇḍi puruṣaḥ* or *daṇḍavān puruṣaḥ* (A man with a stick). Here the *daṇda* is the qualifier (*prakāra*) of the *puruṣaḥ*, and the *daṇḍa* obviously has the *daṇḍatva* as its qualifier. We can represent this complex structure under the second formula.

F.2 : $P_n SV$.

Here the subscript 'n' is meant for any property residing in a single entity and it indicates one and /or all / any of them.

See the following diagram.

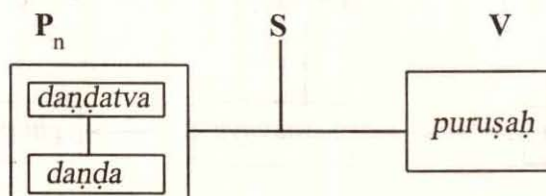


Diagram 2.

The second principle on the complex *vaiśiṣṭya* given in the tradition is :

P.2 : *ekatra dvayam*

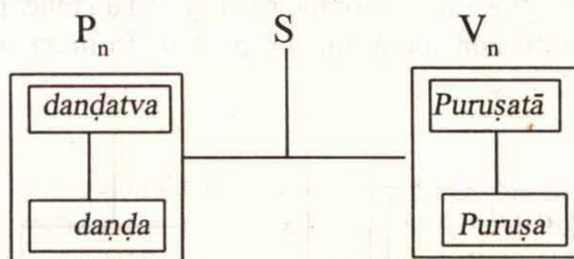
It means, as and when the qualificandum has its own invariable qualifier and the (formal) qualifier also has its own invariable qualifier and then the qualified qualifier is related with the qualified qualificandum. We can take the same example :

daṇḍavān puruṣaḥ

Here the qualificandum *puruṣa* has its own invariable qualifier viz. *puruṣatva* and in the same manner the qualifier *daṇḍa* has also its own invariable qualifier *daṇḍatva*. It means *daṇḍatvaviśiṣta daṇḍa* is the qualifier of the *puruṣatva visiṣṭa-puruṣah*. We can represent this under the formula No. 3 .

F.3 : $P_n S V_n$

The third Principle on the complex structure of the *vaiśiṣṭya*



Dia. 3

is given in the tradition as *viśiṣṭavaiśiṣṭyāvagāhijñāna, atra viśeṣaṇatāvacchedakaprakāraka jñānam kāraṇam bhavati.*

It means, as and when the qualifier is presented in a distinguished manner from amongst its innumerable properties by its invariable / delimiting property and when such a distinguished qualifier qualifies the qualificandum that is treated as the third type of complex *vaiśiṣṭya*. We can take the same example as an instance for this as well, i.e. :-

daṇḍavān puruṣaḥ

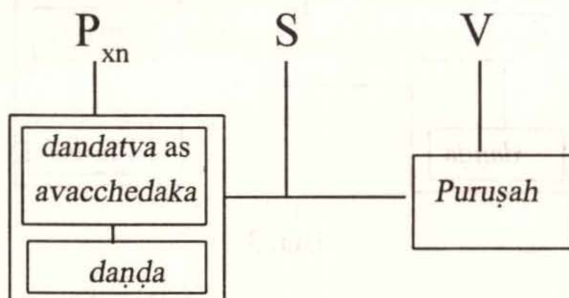
Here *daṇḍatvāvacchinna - daṇḍatvaviśiṣṭadaṇḍaḥ* is the qualifier of *puruṣaḥ*. It means *viśiṣṭa* itself is the *viśeṣaṇa* of the

chief qualificandum (*mukhya-viśeṣya*). This can be represented under the following formula.

F. 4. : P_{xn} S V.

Here the sub-script 'x' denotes the *avacchedakatva* property from amongst the innumerable properties symbolised by the sub-script 'n'. See the following diagram.

Under the principle of the *vaiśiṣṭya* , if all other principles are taken into consideration the present formula may have



Dia. 3

multiple possibilities like :

F.5 : P_{xn} S V_n
F.6 : P_{xn} S V_{xn} etc.

The significance of this formula is that at this stage only the sophisticated theory of *avacchedakata* is introduced, which plays an important role in PP. The comlexities of the theory are very vast and we can not deal in detail on them here, since, we intend to give the general structure of PP in this paper.

Saṁsarga

So for, we have not touched the complex structures of

Ś(*aṁsarga*). Which again plays the most significiant role in *viśiṣṭa-jñāna* and in PP.

The *Saṁsarga* is relation (*sambandha*) and it is defined as *sambandhi-bhinnatve sati sambandhidvayāśritaḥ* i.e., that which is different from its relata but resides on the relata - is called relation.

It is the relation that makes and presents the nucleus as the integrated-whole of a cognition, and thus in the *vaiśiṣṭyāvagāhi-jñāna*, the *sambandha* gets the credit of being the functional head Therefore, the *vaiśiṣṭyāvagāhi-jñānam* can be re-defined as :

saṁsargāvagāhi - jñānam.

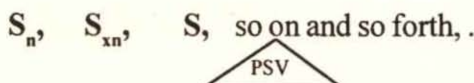
It is because on the basis of the principle *'sambandhāsattve sambandhisattvam* the relata exist only and on account of the existance of the relation. We can consider the relation as the functional-head of the PP, which causes the *viśiṣṭa-jñāna*. The 'S' can be classified in the first instance as :

(1) *Sāmānya-Sambandha* (Simple-Relation)
(2) *Viśiṣṭa- Sambandha* (Complex- Relation)

Simple *sambandha* can be defined as : the relaticn resieds directly between the P(*rakāra*) and V(*iśeṣya*). On the other hand the complex-*sambandha* can have various models like:

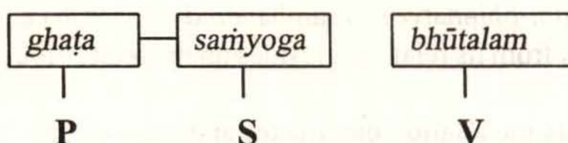
This may have almost all the complexities of the PSV models. For example :

S_n, S_{xn}, S, so on and so forth, .



ghaṭavad bhūtalaṁ.

This can be presented as :

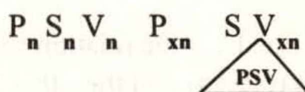


Here the Relation viz. *saṁyoga* is a simple relation. But if the same is presented as : *ghaṭaniṣṭhādheyatānirūpitā-dhāratāśrayaḥ bhūtalam* then the relation will be a complex- type , having the S_n-model, where S as consists of multiple properties. So here the PP model will be PS_nV - model. Taking the complexities of 'S' into consideration, there will be various models of PP as :

First of all the tradition classifies the S into two catagories viz.

$P S_n V$, $P_{xn}\ S_{xn}\ V_{xn}$

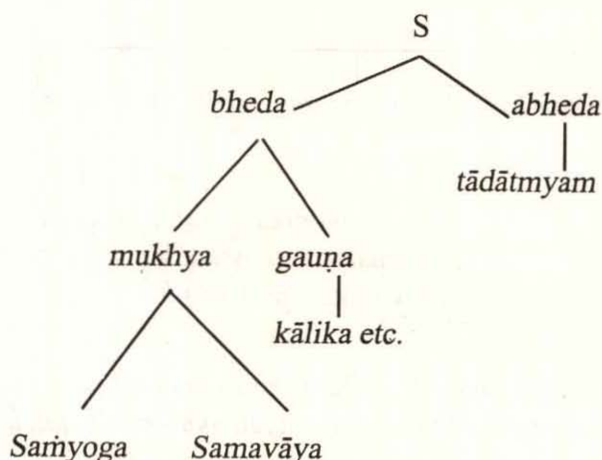
$P_n S_n V_n$ P_{xn} $S\ V_{xn}$



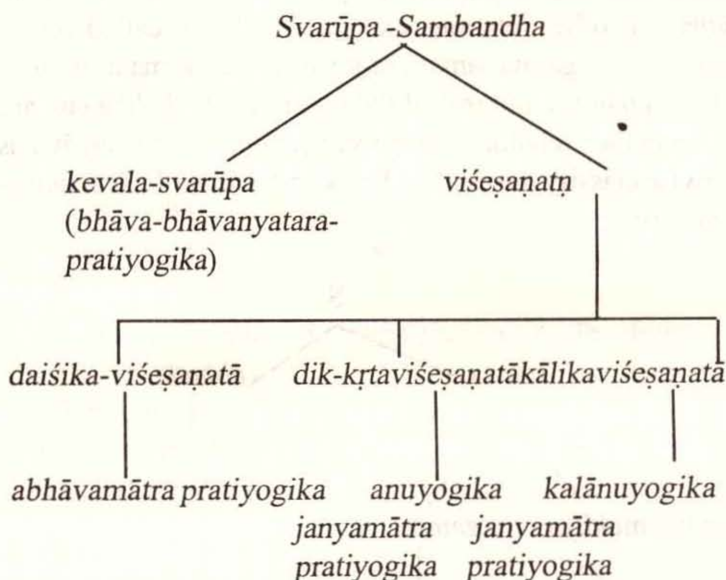
$P_n\ S_{xn}\ V_n$ So on and so forth

(1) *bheda - Sambandhaḥ*
and
(2) *abheda Sambandhaḥ.*

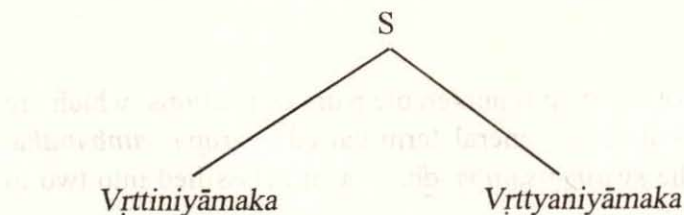
Abheda in *nyāya* system of philosopy is treated as *tādātmya sambandha*. All other relations except *abheda* are called *bheda sambandha*. *Saṁyoga* and *samavāya* are treated as the main amongst the *bheda-sambandha* and rest of the relations like *kālika* etc. are treated as secondary relations (*gauṇa-sambandhas*). The *naiyāyikas* also otherwise classify the relation like *kārya-kāraṇa-bhāva*, *janya-janaka-bhāva* etc.



There are such innumerable pairs of relations, which are catagorised under a general term called *svarūpa sambandha*. However, the *svarūpa-sambandha* is again classified into two in traditon viz. :



The tradition also classifies the *sambandhas* into two as : *vṛttiniyāmaka-sambandha* and *vṛttyaniyāmaka - sambandha.*



Another significant point on 'S' with relation to PP is that out of the two relata of S one is treated as *anuyogī* of S and the other is treated as the *Pratiyogī* of S.

At this stage only the theory of *pratiyogitā* and *anuyogitā* is introduced and in accordance with the various properties of *anuyogī* as well as the *pratiyogī*, the PP is represented in a more complex form .

For example :

> *ghaṭavad bhūtalam.*
> (The ground is possessing a jar.)

Here, as we know, the relation is *saṁyoga*. The relation *saṁyoga* is termed as a *viśiṣṭasambandha* in the following manner.

ghaṭa-pratiyogika-bhūtalānuyogika-saṁyogaḥ.

Therefore, we can underline here the significance of *sambandha* that attributes the P(*rakāra*) with a new property, called *pratiyogitṁ* and the same also attributes the V(*iśeṣya*) with a new property called *anuyogitā* in contrast to the former. In the prospective of *pratiyogitā* and *anuyogitā* the models / formula of PP will be in the following manner.

$P_{pn} \ S \ V_{an}$

Here the subscript 'p' referes to the *pratiyogitā* property of P(*rakāra*) and the subscript 'a' refers to the *anuyogitā* property of V(*iśeṣya*). Now in accordance with the properties like *pratiyogitā* and *anuyogitā* the complexities of PP will be represented in the following manner.

(1) $P_{pn} \ S \ V_{an}$ (2) $P_{pn} \ S_n \ V_{an}$,

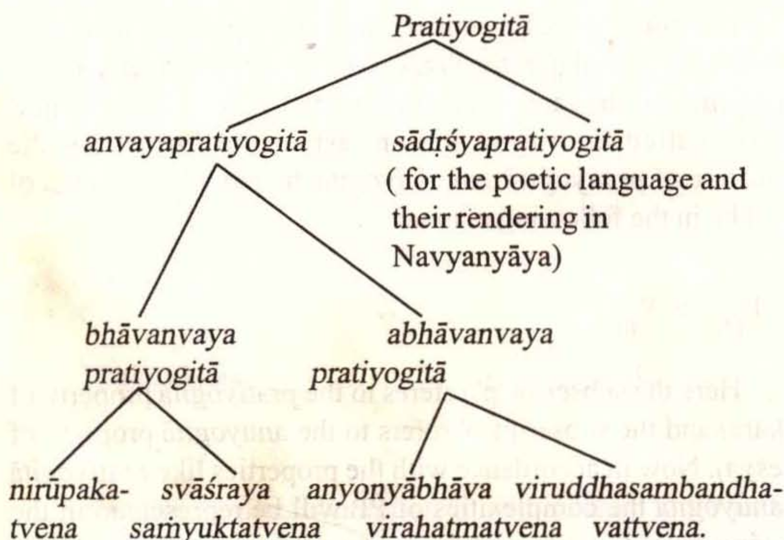
(3) $P_{pxn} \quad S_{xn} V_{axn}$.
so no and so forth.

It may be noted in this context, that the concept of *pratiyogitā* is introduced for PP atleast in three occasions, viz.

i) *Sādṛśya-pratiyogitā*
ii) *Saṁsargīya-pratiyogitā*
iii) *abhāvīya-pratiyogitā.*

Each of them add to the complexity of the PP structure.

The *pratiyogitā* therefore, can be classifed and re-organised in the following manner.
These classifications and specifications can be incorporated into the P_{pxn} S_{xn} V_{axn} model which will add to the more complexity to the PP.



The concept of *Viṣayatā / Viṣayitā*

The PP, as we know is developed for KA (knowledge analysis) by the *Navya Nyāya* school of philosophy. There is another important concept associated with the KA, i.e. called the theory of *viṣayatā* and / or *viṣayitā*. This theory again is rooted in the very nature of knowledge, i.e. of its object, (*viṣaya-nirūpyam hi jñānam*). As we have seen that the *viśiṣṭam jñānam* (i.e. the *savikalpaka*-jñāna) is only useful for our *vyavahāra* and the *viśiṣṭa-jñāna* can be represented under various models / formula simple or complex like PSV or P_{xn} S V_{xn} etc. Therefore, the tradition classifies the *viṣayatā* according to the three segments of the *viśiṣṭa jñāna*, viz.

i) *Prakāratākhya- viṣayatā*
ii) *Saṁsargatākhya- viṣayatā*
iii) *Viśeṣyatākhya-viṣayatā.*

The concept of *viṣayatā* is also added into each and every entity, that might be P or S or V or any properties of them which fall in the complex hierarchical structure of PP. Therefore, concept of *viṣayatā* also adds to the complexity of each of the PP- model, so far we have discussed. For instance the model will look like :

$$P_{v(pxn)}\ S_{v(xn)}\ V_{v(axn)}$$

$P_{v(pxn)}$ would mean in the *navya nyāya* language as : *prakāratākhya-viṣayatā pratiyogitāvacchinna / avacchedakāvacchinna/yatkiñciddharmāvacchinnā vā*. This explanation would be applicable to the rest of the properties in this model.

The knowledge form, if represented in accordance with the *viṣayatā*, then each pair of *viṣayatā* would be related to each other by *nirūpya-nirūpaka-bhāva sambandha*. There is a principle which states that the pair of *viṣayatās* having the relationship viz. *nirūpya-nirūpaka-bhāva* indicate to a pair of *viṣayitās*, who are related with each other by *avacchedyāvacchedakabhāva*. It is stated as : *yayorviṣayatayor nirūpya-nirūpakabhāvaḥ tannirūpita-viṣayitāyor-eva avacchedyāvacchedakabhāvaḥ*.

If this principle is accepted then the *yathārtha jñāna*, which usually defined as :

tadviśeṣyakatve sati tatprakārakatvarūpam

would be redefined as : *tadviśeṣyakatvāvacchinnatatprakārakatvarūpam*.

If this definition is accepted then on the basis of the concept of *viṣayatā* and the said principle , this definition (of *yathārtha-jñāna*) will not be over-applicable to *samūhālambana-bhrama*.

For *samūhālambana-bhrama*, the example is given as '*ime raṅga-rajate*' i.e., this is a pair of *raṅga-rajata* (borax-silver), where two contradictory universal properties viz. silverness and boraxness are represented. The contradiction lies in the knowledge but not in the entity, which is either devoid of silverness / boraxness or qualified by silverness / boraxness. Though the knowledge represented by the statement '*ime raṅga-rajate*' is having a form of *raṅgatva-prakāraka-raṅgaviśeṣyaka* and *rajatatva-prakāraka-rajata-viśeṣyaka* each of the pair are having their own *viṣayatās* and thus, having a 'right-direction relationship' of *nirūpya-nirūpaka-bhāva* but never a 'left direction-relationship' of the same. In accordance with their relationship, they are treated as *avacchedya* and

avacchedaka, never otherwise. Thus there will be no question of over-applicability of the said definition of *yathārtha-jñāna* and no question will arise on the apprehension of *samūhālambana-bhrama*.

This can be achieved on account of the PP of the *navya nyāya* system of philosophy and the different models and formulae so far we have discussed on them. There are many principles and theories to support these models of PP, which are yet to be formalized. More research in this direction can be envisaged on KRS of PP in the field of Indian School of Philosophy esp. on *Navya Nyāya*.

Notes & References

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4

RAGHUNĀTHA ON ATOMIC THEORY

Ramakant Pandey

1. Introduction

The theory of atom developed by *Nyāyavaiśeṣika* school of Indian Philosophy has been an important topic of discussion for centuries. We find that opponents of *Nyāyavaiśeṣika* school have left no stone unturned in refuting this theory on one hand and even some followers of this school also have expressed different opinions. The crux of the problem on which the opponents donot agree is the nature of atom, i.e., that it cannot be perceived by ordinary eyes. *Naiyāyikas*, who believe in the reality of the universe, hold that an atom cannot be perceived but its existence can be proved by inference.

It will be seen that *Naiyāyikas* propound an infra-atomic theory to postulate a partless entity as the material cause of the universe and this entity i.e. atom, plays an importent role in the process of creation.

Raghunāthaśiromaṇi, one of the most prominent followers of the *Navyanyāya* school does not accept this view. In *Padārthataṭṭvanirūpaṇa*, which nodoubt, is a proof of his boldness and originality, he refutes the theory of atom developed by the old school of *Nyāyavaiśeṣika* philosophy.

I

2. Nature of Atom in Nyāyavaiśeṣika System

While describing the process of the creation *Naiyāyikas* and *Vaiśeṣikas* have developed atomic theory. These two schools of Indian philosophy uphold that atom is an eternal entity which has no begining and no end. According to the *manusmṛti* atom is the sixth part of a little mole which we see in the sun-beam coming through window. [1]

Navyanaiyāyikas do not accept the final dissolution of the universe, because of the existence of the atom. The creator makes the creation as before with the help of atoms and thus, this is considered as the material cause of the universe.

We find that the substances viz. earth, water, light and air are divided into two groups eternal and non-eternal. The eternal entity namely the atom is necessarily a partless and minutest thing which cannot be the object of perception. Then how can this entity be established and known ? Śrīdhara, the commentator of *Praśastapāda-bhāṣya* answers :

> परमाणुस्वभावायाः पृथिव्याः सत्त्वे किं प्रमाणम्? अनुमानम्। अणुपरिमाणतारतम्यं क्वचिद् विश्रान्तं, परिमाणतारतम्यत्वात्, महत् परिमाणतारतम्यवत्, यत्रेदं विश्रान्तं, यतः परमाणुर्नास्ति, स परमाणुः अतएव नित्यः द्रव्यत्वे सत्यनवयवत्वादाकाशवत्।[2]

The existence of an atom is proved by *anumāna* (inference). The variation in the degrees of minute magnitude must come to rest somewhere, and the substance on which it rests is the minutest one, which is the atom. In his *sūtra*, Kaṇāda gives the process of inference:

तस्य कार्यं लिङ्गम्। [3]

An atom is the material cause of an effect. And effect produced by atom is the inferencial mark of an atom.

We get the further axiom, also proved by experience, that every object having part is divisible into any number of smaller parts and from this we can get the atom by gradually dividing and subdividing a thing. The process of division must be terminated in a place, because we cannot go beyond a certain limit of dividing a particle *ad infinitum.* The last point of division is accepted in the system as the *paramāṇu*, Vātsyāyana, the author of *bhāṣya* on *Nyāyasūtras* points out -

अवयवविभागमाश्रित्य वृत्तिप्रतिषेधादभावः प्रसज्यमानः निरवयवत्वात् परमाणोर्निवर्तते, न सर्वप्रलयाय कल्पते। निरवयवत्वं तु परमाणोरविभागेऽल्पतरप्रसङ्गस्य यतो नाल्पीयस्तत्रावस्थानात्। लोष्ठस्य खलु प्रविभज्यमानावयवस्याल्पतरमल्पतममुतरोत्तरं भवति। स चायमल्पतरप्रसङ्गः यस्मान्नाल्पतरमस्ति, यः परमोऽल्पः तत्र निवर्तते। यतश्च नाल्पीयोऽस्ति तं परमाणुं प्रचक्ष्महे। [4]

In the above statement, Vātsyāyana, while commenting on the *Gautamasūtra* has however neglected the possibility of the nonexistence of all things. He says that atom is an eternal entity which cannot be dissolved. According to Vātsyāyana, that atom which is eternal is an entity compared to which nothing else can be smaller. In other words, an atom represents the minutest particle of a substance, which cannot be further divided. Vācaspati Miśra explains clearly the nature of atom. According to him an *aṇu* cannot be accepted as a *paramāṇu*. It is the smallest of the small or that particle which is distinguished by *paramatva* i.e. ultimate constituent of a substance. He says -

परमत्वविशिष्टो ह्यणुः परमाणुः। यतः क्षोदीयो नापरमस्तीति यावत्। तस्मादपि चेत् क्षोदीयः अन्यदस्ति नैव परमत्वविशिष्टः अणुरत्यर्थः। अथ भिन्नपरिमाणाः परमाण्वयवाः ततः न्यूनपरिमाणाः इति यावत्। ततः न परमाणुः प्रतिषिध्यते, परमाण्वयवा एव परमाणवः ते च अनवयवत्वादकार्याः। [5]

The point where the process of division of substance is terminated is indicated by Gautama in the *sūtra* -

परं वा त्रुटेः। [6]

In accordance with this *sūtra* a continuous process of dividing a substance into parts would be terminated either in *truṭi* or beyond the *truṭi*, Vācaspati Miśra comments -

यदि त्रुटेः परं द्वित्रिपदके अवयवविभागः न व्यवतिष्ठते ततः अवयवविभागस्य अनवस्थानात् द्रव्याणामसङ्ख्येयत्वात् त्रुटित्वनिवृत्तिः, त्रुटेरपि सुमेरुणा तुल्यपरिमाणा स्यात्। न खलु अनन्तावयवत्वे कश्चित् विशेष इत्यर्थः।[7]

The intention of *Vācaspati* to terminate the process of division of a substance is only for distinguishing the mountain and mustard from each other. If we donot terminate this process and go on dividing *ad infinitum*, the parts of both *meru* and *sarṣapa* would be equal i.e. innumerable in magnitute. If we fix this termination at an atom, we can justify the difference in both *meru* and *sarṣapa* which possess respective magnitude in their vast difference.

Now about the *dvyaṇuka* (dyad) -

द्वाभ्यामेव परमाणुभ्यामारभ्यते यत् तद् द्व्यणुकम्।

That which is caused by (the combination of) two atoms is a dyad. In other words, the effect produced by two atoms is a dyad. Vallabhācārya, the author of *Nyāyalīlāvatī* states the process of creation of dyad etc. -

तत्र द्रव्यप्रक्रियायां तावत् अणुभ्यां द्व्यणुकं ततः त्र्यणुकम् .... त्र्यणुकं कार्यद्रव्येणैवारभ्यते महत्त्वात् घटवदिति मानात्। न चेदेवं महत्त्वं न स्यात्, अणुपरिमाणस्यानारम्भकत्त्वात्। अणुसङ्ख्यैवारभतां महत्त्वं द्वित्वमिव द्व्यणुकमिति चेत् न, तथा सति घटेऽपि परमाणुसङ्घातारब्धत्वप्रसङ्गे भग्नस्य सहसा अदृश्यत्वापत्तेः।[8]

It is said that the first product caused by atom is a dyad, because the ultimate material cause of a thing is *paramāṇu* itself. The *adṛṣṭa*, accepted as an instrumental cause of the universe, produces motion in individual atoms, and then they cluster together in the form of dyad. When the three such dyads combine together they produce the triad and four triads likewise produce *caturaṇukas* and so on and so forth till the final product is created.

Vallabhācārya has pointed out the necessity of accepting dyad. As he says that in the process of producing the substance a dyad is produced from two atoms. In this way a triad is produced from three dyads and so on. Here, a triad becomes the starting point of *kāryadravya*, because of magnitude. If the process of creation of a substance is started by the help of atom, there will be magnitude, as anything of the size of *aṇu* does not result in magnitude. Also it can not be accepted that this magnitude is the result of the number of atoms making dyads without any physical contact. In that case a pot which is produced only by the heap of atoms will immediately disapear when it breaks, because atoms are not perceptible.

It follows from the above discussion that dyad is a logical necessity in the process of creation as explained by *Nyāyavaiśeṣika* system, because *Naiyāyikas* do not accept the creation of a thing directly out of atoms. As this would lead to the non-perception of the product.

We can sum up the salient features of the theory in *Nyāya-vaiśeṣika* as under:

i) *Truṭi* or a triad is a perceptible substance like a pot. Dyads and atoms are its parts.

ii) The ultimate limit for the gradual lessening is the *dvyaṇuka* and the production of an effect starts from itself. It is a divisible thing which can be divided into smaller parts, because it produces the large magnitude in the triad.

iii) A dyad is not a large magnitude but it is a *mahadārambhaka* i.e. the cause of it.

iv) The process of division of substance does not stop at *truṭi* but at an atom which cannot be the object of perception.

v) *Naiyāyikas* hold that **त्रसरेणुः सावयवः चाक्षुषद्रव्यत्वात् घटवत्** and then **यच्चाक्षुषं तत्सावयवम्।** By this inference they prove the existence of a dyad. Since a dyad is *mahādarambhaka*, therefore, they infer further -

त्रसरेणोरवयवाः सावयवाः महदारम्भकत्वात् कपालवत् यो हि महदवयवः कार्यारम्भकः अवयवः सोऽपि सावयवः।

from this *paramāṇus* can be obtained, because a dyad is *aṇuparimāṇin* thus its parts would be minuter than the dyad.

With this, let us turn to the main theme of the paper i.e. Raghunātha's concept of atomic theory.

II

3. Raghunātha's concept of atomic theory

It is seen in the above account of *Nyāyavaiśeṣika* atomic theory that the followers of this school have accepted atom as a partless and eternal entity and they prove its existence by inference. Raghunātha denies the reality of atom. He holds -

परमाणुद्व्यणुकयोश्च मानाभावः त्रुटावेव विश्रामात्। त्रुटिः समवेता, चाक्षुषद्रव्यत्वात्, घटवत्, ते च समवायिनः समवेताः, चाक्षुषद्रव्यसमवायिसमवायित्वादिति चाप्रयोजकम् । अन्यथा तादृशसमवायिसमवायित्वादिभिरनवस्थिततत्समवायिपरम्परासिद्धिप्रसङ्गात् । अणुव्यवहारश्चापकृष्टपरिमाणनिबन्धनो महत्यपि महत्तमादणुव्यवहारात् । [9]

There is no proof (that there are) atom and dyad; because (the process of division of substance) ceases at (the stage of) a triad (*truṭi*) (which is accepted as inferencial mark of an atom). (The argument, namely) "a triad inheres (in its parts), because (it is a) visible substance, like a pot". "And those (dyad etc.) inhere (in their respective parts); because (they are) the inherent causes of visible substances". has no poof. Otherwise, there would arise the contingency of postulating an unending chain of inferences of inherent causes (beginning with dyad) based on their inherent causes etc. Moreover, the usage (of the term) '*aṇu*' is based on (with reference to) a small size; because , the (term) '*aṇu*' is used to describe even a large entity in its relation to something still larger.

According to Raghunātha the last ultimate unit of a substance is not an atom but a *truṭi* and it is not an artificial product of the combination of atoms. The followers of *Nyāyavaiśeṣika* tradition hold that two atoms combine to make a dyad and three such dyads make a *trasareṇu*. But Raghunātha does not believe in this theory, since there is no logical ground to postulate a molecule as the product of dyad etc.

There are two arguments in *Nyāyavaiś'eṣika* Philosophy to prove the existence of a dyad and an atom. Śankara Miśra, the author of *Vaiśeṣikasūtropaskāra* points out -

न च त्रसरेणोरवयवा एव परमाणवः महद्द्रव्यारम्भकत्वेन तेषामपि सावयवत्वानुमानात् तन्तुवत् कपालवच्च। तस्मात् यत्कार्यद्रव्यं तत्सावयवम्, यच्च सावयवं तत् कार्यद्रव्यम्। तथा च यतोऽवयवात् कार्यद्रव्यं निवर्तते तत्र सावयवत्वमपीति निरवयवपरमाणुसिद्धिः।[10]

Śaṅkara Miśra is very clear in explaining that the constituent parts of the *trasareṇu* will not be accepted as ultimate part of a substance, because they are also originative of a substance possessing magnitude. Thus, we can infer that whatever substance is an effect, is composed of parts, and whatever substance is composed of parts is an effect. So that where the effectness ceases partness also ceases there and thus the partless atom is established.

Here, Raghunātha argues that the argument upheld by logicians that "a *truṭi* must be possessed of parts and divisible into finer constituents, viz. dyad, because they are visible substances" is not enough to prove the dyads as the constituents of a triad. This argument requires a logical ground to prove that dyad itself is the part of *truṭi* . Likewise, the argument that dyad are further reducible to atoms, because they are the constituents of substance" which is visible is devoid of any logical necessity. If so, then the arguments can be employed further and further for establishing finer and still final entities in this order and we can not reach the finer stoppage.

Raghudeva *Nyāyālaṅkāra*, in his commentary, while concluding the view of Raghunātha remarks - if dyad is accepted, it would lead to cumbersomeness in case of the perceptual cognition of a triad. And therefore, a stage of dyad need not be accepted. [11]

If this view is accepted the theory of creation of this school will be disturbed and the whole building of the process of

creation, in turn, will collapse. Because creation can not take place without the help of dyad as we have already seen above.

From the arguments of Raghunātha it is clear that he does not favour the existence of a dyad. According to him, divisibility of matter should stop either at *truṭi* or no limit should be accepted for this. The foundation of theory developed by Raghunātha is no-doubt similar to the view of Gautama where he gives an alternative stage to *paramāṇu* i.e. in the *sūtra "param vā truṭeḥ"* (*N.S.*,4.2.16). Viśvanātha explains this *sūtra* as follows-

त्रुटेरवयवास्तदवयवो वा परमाणुरिति विकल्पार्थो वा शब्दः। यद्वा, त्रुटेः परं सूक्ष्मं परमाणुः त्रुटावेव वा विश्राम इति विकल्पोऽभिमतः।[12]

According to Viśvanātha, the word *vā* used in this *sūtra* stands for two alternative meanings. *Paramāṇu* can be considered as the constituent of a triad (i.e. a dyad in the view of *Vaiśeṣikas*) or as the part of double atom. The process of division may be terminated at the stage of atom or at a triad.

Viśvanātha in his *muktāvalī* has refuted the view of Raghunātha. He has revived the traditional view that " if *paramāṇu* will not be recognised, the number of parts in both mountain and mustard will be equal". He says that the process of division should be terminated at an atom and not at a triad. But he does not speak about the word *vā* used in *Gautamasūtra* which gives an alternative stage to stop the process of division.

Viśvanātha states that the necessity of stopping at the limit of atom has a logical ground i.e., if atom is accepted to be a product of still smaller parts, there will be *anavasthā*. [13]

This is not Viśvanātha's own contention, having been put forward by the earlier stalwarts of the system.

4. Conclusion

After having critically dealt with the atomic theory propounded by both the old school of *Nyāyavaiśeṣika* and Raghunātha we may conclude that the *sūtra : param vā truṭeḥ* (*N.S.*, 4.2.17) has prompted Raghunātha to introduce his theory. But it is far from acceptable.

Raghunātha argues that *truṭi* should be accepted as the material cause of a product i.e. the creation of a thing will be started through *truṭi* itself. But it is not an eternal entity and thus, it cannot be considered as the material cause of creation.

The purpose of accepting dyad is to explain the theory of creation without keeping any lacuna in it. The old logicians hold that magnitude will be produced in a product only by the *kāraṇabahutva* i.e. more than three causes. If we accept Raghunātha's stand, that dyad is not necessary and triad is the beginning point of creation then the creation would begin from non eternal entity.

Needless to say, that Raghunātha has found more than two or three followers of this theory. For instance, the author of *Tattvasāra* has supported Raghunātha in this connection but he does not provide any new point beyond the theory of Raghunātha. He refutes Viśvanātha who has rejected the theory of Raghunātha:

> त्रुटौ द्रव्यस्य विश्रामाद् द्व्यणुकादेरलीकतेति....... अनवस्थाभयेन परमाणूनामवयवाः सेद्धुं नार्हन्ति, अन्यथा मेरुसर्षपयोः साम्यं प्रसज्येतेति चेत् परमाणूनां सावयत्वसिद्धावेव भवतामनवस्थाप्रसङ्गभयं त्रुटीनां पुनरप्रामाणिकावयवादिसिद्धौ न तथा प्रसङ्गः। [14]

It should be noted here that the theory presented by Raghunātha is not his original view. Udyotakara, while explaining the *Nyayasūtra* (2.1.31) states -

एके तु वातायनच्छिद्रदृश्यं त्रुटिं परमाणुं वर्णयन्ति। तन्न युक्तम्। तस्य भेद्यत्वात्। अभेद्यः परमाणुः भिद्यते त्रुटिरिति। कथमवगम्यते भिद्यते त्रुटिरिति ? द्रव्यत्वे सति अस्मदादिबाह्यकरण प्रत्यक्षत्वात् घटवदिति कथं चान्यथा अभेद्यः परमाणुरित्युच्यते ? अनित्यत्वाच्च न परमाणुः सामान्यविशेषतः अस्मदादिबाह्यकरणप्रत्यक्षत्वाच्च। यस्मान्नैन्द्रियिकः परमाणुरिति तेषामतीन्द्रियत्वात् यत्प्रत्यक्षं तदन्यदिति विरुद्धो हेतुः। [15]

From this it is clear that some deny the atomic theory of Gautama. But Udyotakara is well aware of this view and has refuted it by saying that a triad cannot be considered as an atom, because it is a divisible substance. A triad is the object of perception and thus, we can infer that it is composed of parts the part of a triad (dyads) are also composed of futher parts which are invisible and are accepted as atom.

Indeed, it is an interesting point that both, old logicians and Raghunātha have developed their theories to avoid *anavasthā* in *anumāna* but the theory of Raghunātha does not put any idea in our mind to go further.

Notes and References

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5

ŚĀSTRIC KNOWLEDGE REPRESENTATION AND RELATIONAL KNOWLEDGE BASE METHODOLOGIES

G. Mishra

Natural language is recognised as abstraction that is closer to the normal comprehension of the real world. But it becomes difficult to use natural language as a tool of knowledge representation because of context sensitivity and ambiguity. Hence the role of artificial language cannot be ruled out since time immemorial such a need is felt and problem solving measures are adopted in oriental and accidental traditions in the form of aphorisms etc. for explaining the usages of language in the real wordly situations.

In India, a tremendous endeavour has been put forth by Pāṇini who has very successfully brought out the tools of analysis for the whole of Sanskrit language in his aphoristic treatise *Aṣṭādhyāyī*. He has made a type or system of artificial language to accommodate all the variations of Sanskrit language usage available till his time. For that reason perhaps the Pāṇinian method has been found nearer and suitable for the natural language processing in computer systems. The problem would be naturally there as the Artificial Intelligence system has not been able to equip itself with the ability of logical reasoning and displaying emotional traits. In *Aṣṭādhyāyī*, we do come devise to take care of this facets in computing technology.

Another such attempt to analyse the language usages has been taken up by *Nyāya* school , especially the *Navyanyāya* school of Gaṅgeśa (13th century) which developed a technical language which was adopted in course of time by other Indian schools for the sake of better understanding. For the sake of perfection, acquaintance with the techniques of this *Nyaya* language was considered necessary for the students of grammar, poetics, law, and *Āyurveda* apart from different philosophical systems. *Navyanyāya* developed a language to describe knowledge and other cognitive states and attitudes. This language which is different from ordinary Sanskrit is technical in the sense that it contains terms for concepts which are developed to deal specifically with cognitive mental states. Thus, though such devices are developed in the *Navyanyāya,* which has a realistic ontology, these could be applied to any serious philosophical discourse for the sake of rigour and precision.

Before entering into suitability or *Navyanyāya* techniques for Natural Language processing, it seems necessary to get acquianted with the tenets of the system itself. To start with, the dual system of *Nyāya Vaiśeṣika* maintain that its scheme of seven *padārthas* represent a satisfactory classification of all the knowable and nameable things (category of *padārtha*). The *Vaiśeṣika* school does not include *abhāva* in the scheme as for Kaṇāda's understanding an *artha* cannot be non-existent. But a complete scheme of all the knowable things cannot omit *abhāva* as one knows the object which is non-existent and the negative terms in the language denote it. In the first *sūtra* of *Nyāya darśana,* Gautama enumerates sixteen *padārthas.* These are not the metaphysical categories similar to those of *Vaiśeṣikas,* but these are sixteen topics which are to be known for understanding *Nyāya* dialectics. The *Nyāya-vaiśeṣika* system advances its arguments and refutes the claims of other schools like Bhaṭṭas or Prabhākaras who ar-

gue in favour of 'potency' (*śakti*) as a distinct category and *Mīmāṁsakas* claim in establishing 'similarity' as a distinct category.

Annambhaṭṭa, in his *Tarkasaṁgraha* divides substances into nine types. A substance is defined as substratum of qualities and movements and this essentially makes this school a realistic one. The qualities are divided into twenty four drawing a distinction between *sāmānya-guṇas* and *viśeṣa-guṇas*. Activity, generality, peculiarity and inherence are also accepted as categories. The peculiarity here is that the individual units may come and go, but the generic attribute common to the whole class exists for ever. This *Jāti* or *Sāmānya* is related to *vyakti* or individual through an intimate relation called *samavāya* which does not stand in need of the help of a definitive expression for its comprehension. *Naiyāyikas* recognise certain generic attributes called *akhaṇḍopādhis* which are not *jātis* but similar to them in all respects except that the relation of the former to the abode is self related *(svarūpa-sambandha)*. According to some Naiyāyikas, the last controversial *padārtha, abhāva* has the *abhāvatva* as *akhaṇḍopādhi*, while others view it as consisting in the negation of *sattā* (existence) through the relation inherence. In *Naiyāyika's* scheme of analysis *viṣaya* is object, *viṣayatā* is objectness, *viṣaya-tatva* is being in the state of objectness-ness and the last one in *akhaṇḍopādhi*. *Naiyāyika* brings this *akhaṇḍopādhi* under *sāmānya* which is meant to include *jātis* and *akhaṇḍopādhis*. In *Nyāya*, distinction is made between *akhaṇḍa-sāmānya* and *sakhaṇḍa-sāmānya*, the former being a *jāti* directly connected with a *vyakti* and the latter being a generic attribute connected with a *vyakti* through some indirect relation (*paramparā-sambandha*).

For *Nyāya*, when we see something say an animal, our experience invariably takes the form "This is the animal". This uniformity cannot be accounted for without assuming generic property called 'animalness'. This is the law of parsimony or the *lāghavanyāya* which determines many a hypothesis the *Nyāya* and other systems, which is called as "occam's razor" in western philosophy. This economy of thought in the asence of any difficulty would necessarily lead to universality like 'objectness' etc. being assumed to be eternal and one and connected with all the substance through *samavāya*. This comprehensive *jāti* is known *sattā* which is taken as *artha* by Kaṇāda and he says that these *sāmānya* or *viśeṣa* are dependent upon the situatedness or the viewpoint.

Now how is this *jāti* related to the substance ? Here *Naiyāyika* talks of relations. When two substances come into contact with each other, the relation is called as *saṁyoga*. It is a separate relation. There is another type of relation which determines determinate cognitions of objects as associated with certain attributes (*viśiṣṭa pratīti*) and this relation when it happens to connect two things of which one is always associated with the other is known as *samavāya*. This is an intimate type of relation recognised as subsisting between component parts and the composite whole (*avayava* and *avayavin*). *Naiyāyik* distinguishes *samavāya* from another type of relation recognised by them which is known as self linking relation or '*svarūpa sambandha*' which consists in one of the related things being looked upon as comprising a relational phase forming a connecting link. For instance *kālika sambandha* is time itself looked upon as a connecting link between time and things limited in time.

Characteristics of *Navyanyāya* Relation theory

From the above discussion it becomes clear that a relation is conceived as dyadic in *Nyāya* which is also the same in *Navyanyāya*. For examples in the sentence.

X is the father of Y.

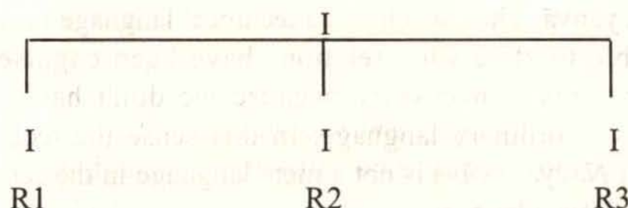
Here X is the *anuyogin* and Y is the *pratiyogin*. Similarly, a pot is the object of cognition of the pot. Here the pot is the *anuyogin* and its cognition is the *pratiyogin* of the relation being the object of. Thus in these examples it appears that *anuyogin* of a relation is its first term or predecessor and the *pratiyogin*, the successor. But the sense or the direction of the relation is from the successor to the predecessor. In Western symbolic logic. The object 'a' has the relation 'R' to the object 'b' and the presentation is in the form ab. This will mean that 'X' has the relation 'F' (being the father of) to 'Y'. To make it more specific, a relation is defined as a qualified cognition which is different from qualificandum and qualifier. A qualified cognition has as its object a structure having three elements as given here.

i) A Qualification, which is cognised, the pot in the present example.

ii) A qualifier which is very often identified with the mode under which the qualificandum is cognised; 'potness' is the qualifier.

iii) The qualification which is the relation between the qualificandum and the qualifier; in this example the realtion of jarness to the jar i.e. the relation of inherence.

Representation of the Relational Complex



A Relational Cognition -> Cognition of a Relation -> Cognition of something as something -> something qualified by something -> related to something .

This theory has a very important consequence for the ontological status of relations. It envisages a three fold classification which may be given as follows.

1) The first kind of relation is just one relation - inherence, which is ontologically a separate reality. Thus inherence as denoted by the word 'inherence' is the qualificandum of a cognition of inherence and the cognition is therefore related to inherence by R1 instead of R3, which is the proper relation in the objective structure.

2) It doesn't have any difficulty in holding the view that anything belonging to any category of reals can function as a relation in a qualified cognition. In a cognition for example.

'Pot possessing is the ground'

we have ground as the qualificandum of the cognition, jar as the qualifier and contact as the relation indicated by `possessing' which

makes contact a term. Thus it is impossible to express in language a cognition that contact is the relation between the jar and the ground.

Navyanyāya has developed a technical language in which it is possible to state what relations have been cognised in cognitions. This is necessary because we don't have such expressions in ordinary language. In this sense the technical language of *Navya-Nyāya* is not a meta language in the sense of a language about a language.

Thus in order to explain the cognition under discussion *Navyanyāya* describes it as the cognition with the ground as its qualificandum., the jar as its qualifier and the contact as the relation between them. In the technical language of the *Navyanyāya* the cognition is described as having its qualifierness limited by jarness and the relation of contact, determining the qualificandum-ness resident in the ground and limited by groundness. To say that the qualifierness is limited by contact is to say that the contact is related to the cognition by R3. So also anything which is produced will be related by itself to the time of its occurrence. Anything occupying space will be related to space by itself. Thus a self linking term doesn't belong to any category of reals.

3) Self Linking Relations : *Navyanyāya* makes extensive use of this concept. A qualified cognition is defined as a cognition of relation between the qualificandum and the qualifier. The problem here is how can the relation be cognised when there is no relation in reality. *Naiyāyika* says that what is cognised as relation of the cognition to what is cognised. This real entity will therefore be both the qualificandum and also the relation of the

cognition. Thus the cognition of *ghaṭavad bhūtalam* or cogniton of 'A' as 'B' possessing can be represented as follows. But in the case of identity, there is only one real entity which functions in three different capacities in the cognition in the following way.

Cognition of A = B

Here there is only one reality which is cognised as the qualificandum, the qualifier and the relation between them. Thus in the terms like object, father or son, we get the relation objectness, or sonness as the relation of cognition to the object. Ontologically, fatherness is the same as the father and the like. But the same person when cognised under the higher order abstract form - the state of being the father or fatherness and so on.

In *Navyanyāya*, we have already seen that inherence is a relation which holds between different type of entities. The relation is completely defined by listing the predecessor and successor relationship thus :

Predecessor	**Successor**
Parts	Whole
Substance	Quality
Substance	Motion
Substance, quality	Their Universals
Eternal Substances	Their self differentiating individuality

Professor Shibajivan Bhattacharya argues that if we take this as the model of relationship in *Samavāya,* then *Samavāya* cannot be translated as inherence. We have to use "inherence converse" as the term for the *Samavāya.*

As already pointed out, a relation when stated in language i.e. ordinary language is at once given the shape of a term and ceases to function as a relation. But it becomes necessary to specify the relation. So the convention in *Navyanyāya* is that by introducing the term limited relation (*avacchinna* or *nirūpaka* etc.) We have to understand that in the cognition this particular relation has been cognised to hold between the qualificandum and the qualifier like the father son example, we have to say "*svaniṣṭha pitṛtva nirūpakatva*" etc.

Now after dealing with a few concepts like *sāmānya, samavāya* and the like, with certain tabular representation and after enumerating certain variations in their understanding which might be useful for NLP, I now suggest a few abstractions which will be useful for an AI type of discourse analysis.

1) In a given discourse or a sentence, we have to map words as per their functional roles. The relations among them are to be properly understood and they are to be tied down with appropriate relational terms available in *Navyanyāya.*

2) The variations are to be taken into account and enumerated before examining the terms for which one or more relations are to be sought out. For example there are quite a few terms for which we cannot accept universality and thus a different paradigm is to be found out from within the system itself.

3) The question of sequence is to noted carefully for that will determine the exact relation as examplified in successor predecessor method as dealt with elsewhere in this paper.

4) A guideline of all the relations and their varieties should be enumerated with the available peculiarities against the appropriate relation.

We have briefly given a model for a few terms with their possible variations which could be beneficial to NLP in advancing a possible programming for the same. I have no doubt that it would not be far off for the researchers to devise an appropriate software which can accommodate and analyze the whole of *Navyanyāya* for a better, easier and quicker understanding. But at any point of time the philosophical ideas would have preponderence on the NLP system as the variations can be innumerable in human thinking and that cannot be possibly fed into computer. All that can be done is to store as much data as possible for the benefit of the posterity as the traditional learning in India is losing its ground on which it has been strongly footed so far.

Books Referred

1. *The Primer of Indian Logic* -- S. Kuppuswami Sastri

2. *Viṣayatāvada of Gadādhara* -- S. Bhattacharya

3. *Intelligence comes first* -- E. Lester Smith

6

RECONSTITUTING *AṢṬĀDHYĀYĪ* MATERIALS

K. Kapoor

Currently five kinds of CL work is centered on *Aṣṭādhyāyī;* i) analysis and description of Sanskrit structure; ii) developing learning/ teaching systems within the Pāṇinian frame; iii) inferring from *Aṣṭādhyāyī* (as a proto grammar) universal features and properties of language and of knowledge representation to draw lessons both for language analysis and language representation; iv) computersing and storing the text. v) as a primary model of knowledge (semiotics) .

The fourth area may be interpreted as : study and storing of *Aṣṭādhyāyī* as a text/as a *Śāstra.* A Full access to the text should be made possible by reconstituting / organising it into a *computer text system.*

A tentative proposal is being made here for preparing an *Aṣṭādhyāyī* text as a computer aided/ learning and instruction system in the Indian (and wider, if possible) context. This will be an expanded text stored and made available in several ways.

i) The need for such a text as a teching / learning aid is self-evident - it will be used by a wide range of users - students and scholars of Indian languages, linguistics, semiotics and of Sanskrit language and grammar. It will be of particular use to Indian students belonging to different languages who are able to read only one particular script.

2) The text should be made flexible by appropriate staging to allow its use by an average learner and at the same time making advanced materials accessible to advanced learners and scholars.

3) The text may be made available in 10 Indian languages in their respective scripts. It may also be prepared in English. These ten Indian languages could be, Panjabi, Hindi, Assamese, Bengali, Oriya, Telugu, Tamil, Kanada, Marathi, Gujarati.

4) No particular effort or special language will be required to transfer this text into the machine.The real problem is designing an appropriate structure for such a text. This involves an understanding of -

a) The way a reader studies or understands this grammar.

b) The difficulties he encounters or is likely to encounter.

c) The nature of the text.

d) The available materials in the tradition.

e) The method *(paddhati)* to be adopted, and

f) The traditional *Śāstra-paddhati.*

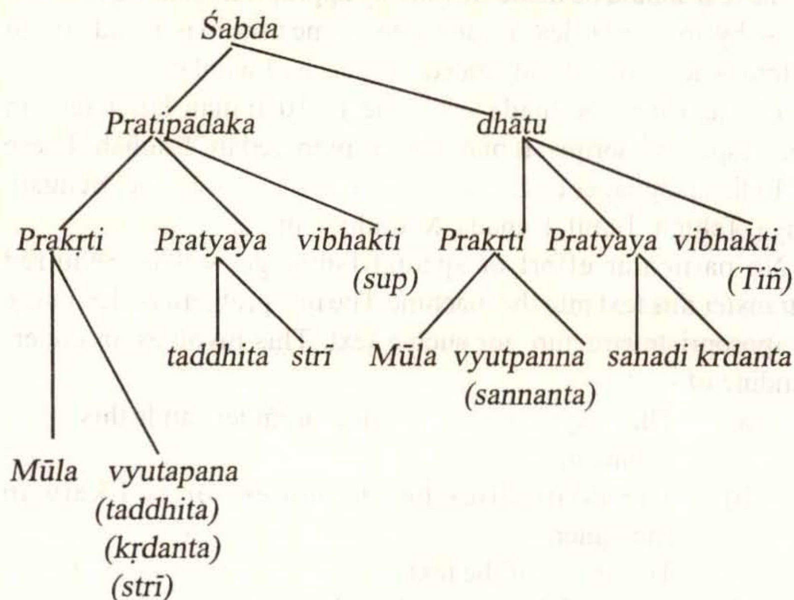
5) With reference to the six issues listed above, it may be suggested with reference to each of the six that-

i) The reader proceeds from knowledge about the text (= history, general organisation, content, method of reading rules, other relevant information) to the study of the text. This order may be adopted.

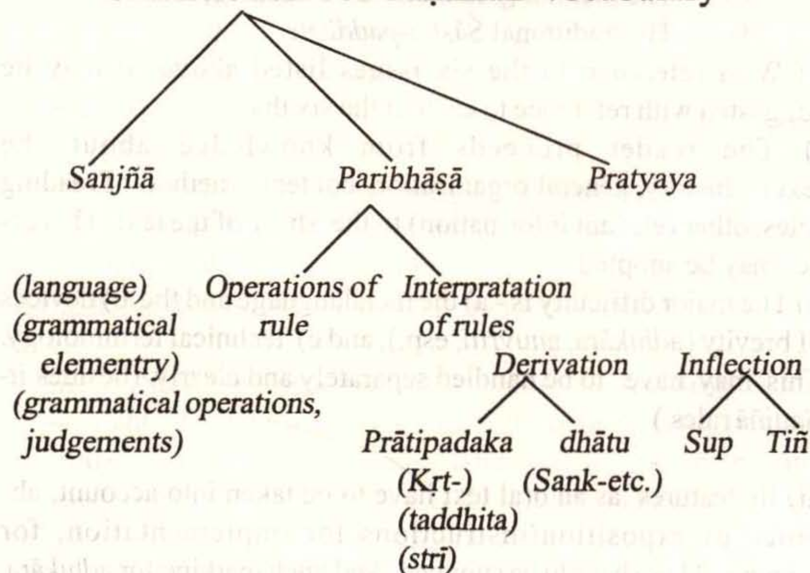
ii) The major difficulty is - a) the metalanguage and the b) devices of brevity (*adhikāra, anuvṛtti,* esp.), and c) technical terminology. This may have to be handled separately and clearly. (besides *it-Sanjñā* rules.)

iii) Its features as an oral text have to be taken into account; absence of exposition/instructions for implementation, for example. These have to be supplied. And pitch marking for *adhikāra.*

Object of Knowledge in Pāṇinian Grammar



Classification of Pāṇinian Vocabulary



iv) *Vārtika* and *Mahābhāṣya* to be treated as part of the text, and optionally incorporated after, along the pertinent rules.

v) (a) The presentation of the *Aṣṭādhyāyī- sūtras* will be in (i) Sanskrit, and (ii) correspondingly in the independent scripts of the ten languages. (b) The essential method would consist of ; (i) explicit reconstitution of the *Aṣṭādhyāyī-sūtra;* (ii) *Pada-artha;* (iii) *tatvārtha* through elucidation- based on *vārttika* and *Mahābhāṣya* wherever needed and available. This may be presented in two levels- (a) simplified for average reader, and (b) scholarly for advanced students and scholars. Further - (iv) *Sādhāraṇa-bhāṣā-ṭīkā;* (v) *udāharaṇa, Pratyudāharaṇa;* (vi) *vākya-prayoga,* (vii) reference to further portions of texts, if necessary. For an actual example of wonderful pedagogical method, please refer to Sri Dayananda's *bhāṣya* on 1.1.9. (*Aṣṭādhyāyībhāṣya,* p. 20-26). This may provide helpful principles of proper exegesis. (c) Further exposition of the rule would be through *vārtika-bhāṣya* and then a summing up. *Vārtikabhāṣya* portions will also have the same choice of scripts as the *Aṣṭādhyāyī-sūtras,* and will be exegised in the same way.

6) The traditional method of interpretation (*Śāstra-paddhati*) employs the following devices;

A. i) *Śrutis*
   ii) *Darśana/Smṛti*
   iii) *Itihāsa - purāṇa*

B. iv) *Sārvabhauma-siddhānta*
   v) *Sangati (Prasaṅga)*
   vi) *Paribhāṣā-nyāya*

vii) *Laukika-nyāya*
viii) *Vyākaraṇa*
ix) *Nirvacana*
x) *Śabda-śakti*

The methods from iv to vii, in particular, are relevant for grammatical exegesis and have been employed in the tradition. *Sārvabhauma-Siddhānta* of Pāṇinian grammar will go into the introduction (based perhaps on Madhvācāryas 13th chapter) to the text. *Saṅgati* requires relating the philosophical foundation of grammar to *Vaiśeṣika- Sāṁkhya* thought, and other systems. It also requires establishing continuity or discontinuity among different parts of the text. Attention may be drawn to different *nyāyas (paribhāṣā* and *laukika nyāya)* when they are involved in the determination of meaning.

7) The RECONSTRUCTION would consist, for each *sūtra*, of (see chart).

i) analysis into pada
ii) restoring adhikāra-*anuvṛtti* elements
iii) identifying the *samāsa* (compound) (if required)
iv) marking the *vibhaktis* of each *pada*
v) re-ordering the *pada* in -
5-7-6-1
5-7-1
6-1-7
orders, as the case may be.
vi) Translating the *sūtra* into English, Hindi, Panjabi, Gujarati, Marathi, Kanada, Malayalam, Tamil, Telugu, Oriya, Bengali and Assamese.

8) Support texts will be separately included;

Dhātu-Pāṭha, Gana-pāṭha, Pratyāhāra-sūtrās, Liṅgānuśāsana and *Uṇādisūtras*. Also *IT-saṅjñā* rules. Also *Pāṇinīya Śikṣā* (in original Sanskrit, and in script choices) with provision for recall and display along with the pertinent sūtra.

9) Indices (For Reference)

- i) Alphabetical list of *Sūtras*
- ii) Thematic grouping of *sūtras* (65 themes according to *Siddhānta- kaumudī*).
- iii) *Pratyāhāra* list and *Pratyāhāra*-generation Programme.
- iv) *IT- Saṁjañās* dictionary
- v) Dictionary of affixes
- vi) Dictionary of technical terms
- vii) Typical declension paradigms (83 paradigms)
- viii) Typical conjugation paradigms (23 paradigms)
- ix) Typical Examples of each of the seven kinds of *Siddhi*
- x) *Sandhi*-enumeration and corresponding rules
- xi) Concordance of *pada* in *Aṣṭādhyāyī.*
- xii) Enumeration of representative, frequent nouns and verbs for declension and cojugation paradigms.

10) Supplement

The following three texts -

- i) *Kātantra*
- ii) *Cāndra*
- iii) *Hemaśabdānuśāsana*
- iv) *Jainendra text*

11) The material looks like this -

(see the diagram on next page).

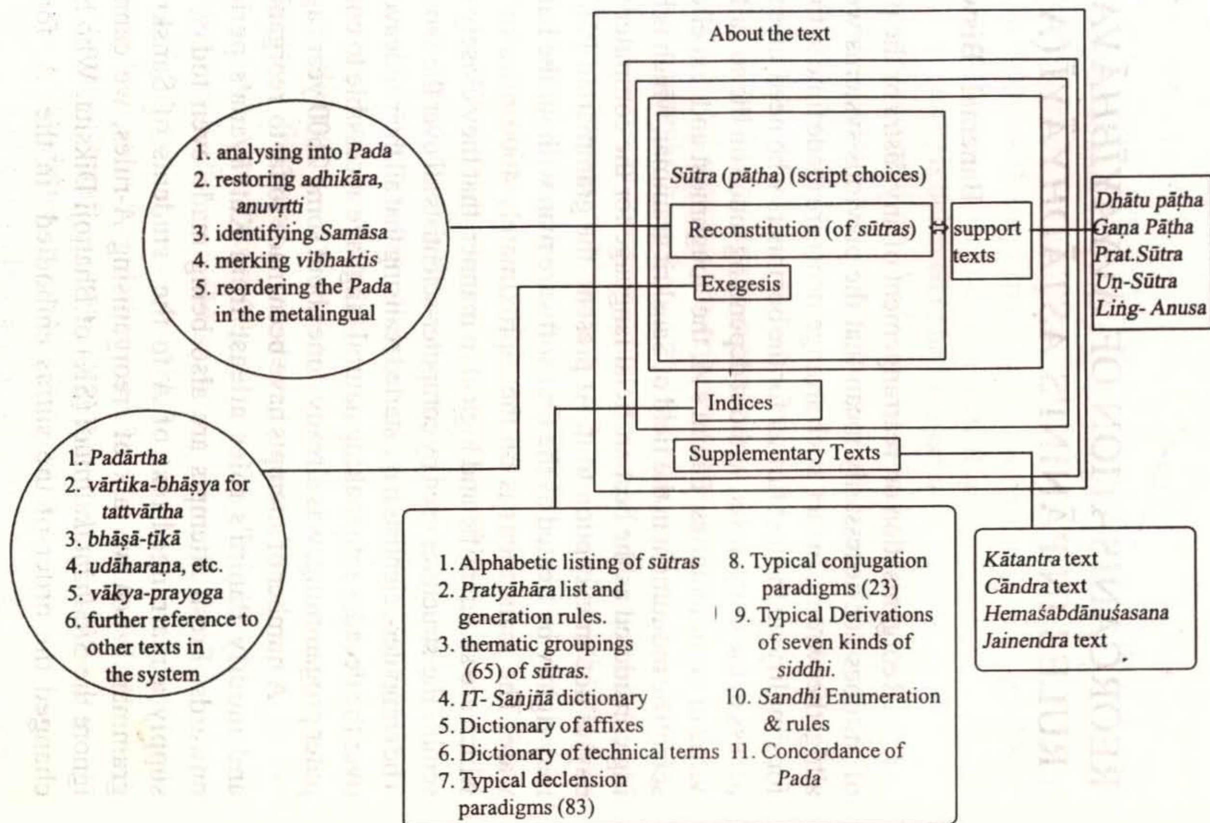
READINGS

1.Brahma Dutt Jigyasu, *Sanskrit Pathan-Pathana ki Saralatama Vidhi* (*2 Vols.)* Bahalgarh (Haryana): Ram Lal Kanpur Trust, 1982.

2.Sri Nanda Kishore, *Aṣṭādhyāyī-Sūrta Pāṭha Vārttika-Gaṇa- Pāṭha-Sahita)* Panipat: Anita Arya Prakasana. 1990.

3.Sri Dayananda Saraswati, *Aṣṭādhyāyībhāṣyam.* Ajmer. Vedic Pustakalaya. 1961.

Prolegomenon to Aṣṭādhyāyi -text for Computer Aided study



7

REORGANISATION OF *AVYAYĪBHĀVA* - RULES IN PĀṆINI'S *AṢṬĀDHYĀYĪ* (A)

Banamali Biswal

Reorganisation or rearrangement of any *śāstra* or the part of it, does not necessarily mean that the previous systems were altogether wrong. In fact, such arrangements are made time to time for simplifying the text further for the beginners who need an easy access to the tough texts, without depending much on the so called *vṛttis* or commentaries. Pāṇini's *A*, the toughmost and excellent scientific monument in the field of Sanskrit grammar, which is being considered as the best artificial language for the computer today, is not an exception to it. At present, the grammarian Pāṇini may rightly be treated as the first software man without the hardware. The main focus is on the aproximately 4000 rules of A, which are so scientific and logical in manner that they closely resemble the structures used by computer-scientists all over the world. The computer-scientists have started realising that all their endeavour over the decades into making natural language accessible to computer progamming, was already done about some 2600 years ago.

A number of attempts have been made so far to reorganise and modify Pāṇini's rules atleast from Kātyāyana's period onwards. Fresh attempts are also being made even today, to supply a rearranged text of *A* to the students of Sanskrit-grammar. When we talk of reorganising *A*-rules, we cannot ignore the *Siddhāntakaumudī* (SK) of Bhaṭṭojī Dīkṣita, Who has changed the order of the *sūtras* embodied in the A, for a

chapterwise-classification. Therefore, it is rightly named as *Prakaraṇagrantha*. However, such trend of chapterwise-classification was existing before Bhaṭṭoji Dīkṣita also. *Prakriyākaumudī* (*PK*) of Rāmacandraśeṣa (15th century) is a similar work on Sanskrit grammar, where the subject matter of the eight chapters of *A* is rearranged into several chapters forming the different topics of grammar. In fact, *Rūpāvatāra* of Dharmakīrti (12th century) is believed to be the first work in this regard, which has been accepted as a model by the authors of both *PK* and *SK*. But this system got its full recognition from Bhaṭṭoji's period onwards. No doubt, *PK* was popular to some extent unlike *Rūpāvatāra*, but SK subsided its importance which possesses a critical as well as exhaustive explanation with examples and counter-examples . SK which is prescribed as course of study in the syllabus of grammar throughout India and abroad, became so popular that it gave rise to the sayings like: *Kaumudī yadi kaṇṭhasthā vṛthā Bhāṣye Pariśramaḥ, Kaumudī yadyakaṇṭhasthā vṛthā Bhāṣye pariśramaḥ*' ; if *Kaumudī* is by hearted then it is useless to toil in the *Bhāṣya*, (at the same time), if *Kaumudī* is not byhearted then also it is futile to toil in the *Bhāṣya* '. In fact, the study of *SK* prepares the way for understanding the *Mahābhāṣya*. Because of such new arrangement of *sūtras, SK* can be considered as a piece of good research even in today's context.

Bhaṭṭoji's way of arranging the *sūtras* into so many chapters on the basis of grammatical units like *saṁjñā, sandhi, samāsa, kāraka* etc. is certainly praiseworthy, but since the present generation believes in the saying: *purāṇam ityeva na sādhu sarvam*[1] 'everything is not good because it is old', we are not ready to blindly accept the methods which are traditionally handed down to us. Therefore, the reorganisation of the *sūtras* will still serve some purpose from the simplification point of view. A logical systematic and scientific rearrangement may also serve some

purpose towards preparing computational database for natural language-processing. Since my knowledge is meagre with regards to Computer and its functions, my endeavour will be to present a systematic and scientific reorganised-text proving more comprehensive and simple for the beginners.

It seems, there is absolutely no harm in starting this project of rearrangement of *A- sūtras* from the edifice of Bhaṭṭoji's arrangement. In other words, it is quite alright to retain the chapterwise-classification of *SK*. But, there is no need to accept those chapters of *SK* as it is. We are free to make any change wherever necessary without violating the principles of Pāṇini such as *anuvṛtti, anukarṣa* or *apakarṣa, adhikāra, niyama* and *atideśa* etc.

In fact, it is high time now to study Pāṇini through Pāṇini. That means, one should read *A* with the principles of *A* without the help of any commentary or *vṛtti*. Ofcourse, it is not that easy to understand *A* without any aid, because, first of all, it requires the memorisation of the whole text. On the other hand, to study Pāṇini through *SK*, also needs the memorisation of the *Vṛtti* of the concerned *sūtras*. Therefore, it is better to reorganise those *sūtras* by taking both the alternatives, namely, *yathoddeśa-pakṣa* and *kāryakalapakṣa* into consideration. In other words, a fresh thinking is necessary in this regard to find out a third middle way between the *A* and *SK*. Thus, we can have our own chapterisation and own method of arrangement, instead of simply justifying the existing methods.

The present paper is an attempt to reorganise the *Avyayībhāva (AV)* - chapter of *SK*. However, this little effort may

serve as a model for rest of the chapters of compound (CP) - section.

The *AV*- chapter of *SK* contains 37 *sūtras*. Many of them are of dissimilar in nature. The function of those rules vary to each other. They can be classified into the following groups on the basis of their contents:

(I) *adhikāra-sūtras* [2] (II) *samjñā-sūtras* [3] (III) *nityasamāsavi - dhāyaka-sūtras* [4] (IV) *vikalpasamāsavidhāyaka-sūtras* [5] (V)*vikalpasamāsāntaravidhāyaka-sūtras* [6] (VI) *nipātanasiddha-samāsavidhāyaka-sūtras* [7] (VII) *samastapadasādhutvapra-kriyāvidhāyaka-sūtras* [8].

So far as the *adhikāra*-rules of *AV*- chapter are concered, *adhikāra*- rules [9] and (b) specific *adhikāra* - rules [10], out of which the rule : *samāsāntaḥ* (P.5.4.68) is a case of *arthādhikara* and the rest are *śabdādhikāras*.

Amongst the *nityasamāsavidhāyaka*-rules, 5 rules [11] are stated before the *mahāvibhāṣādhikāra* i.e. P.2.1.11. However, there is a single rule [12] in this chapter, which is considered as a *nityasamāsavidhāyaka*-rule, eventhough it comes under *vibhāṣādhikāra*. Bhaṭṭoji Dīkṣita says, though this rule is stated in the *vibhāṣādhikāra*, still since the *saṁjñā* cannot be understood by a sentence, this is a case of *nitya-CP* [13]. In fact, the analytical sentense: *Unmattā Gaṅgā Yasmin* 'a place where the Ganges are furious,' cannot denote the *saṁjñā* i.e. the name of a country. On the other hand, the CP: *Unmattagaṅgam* can do so very well.

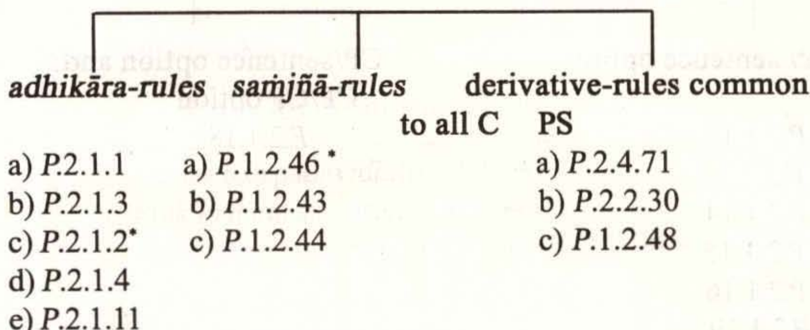
Out of the 8 rules which teach a CP and a sentense optionally, the rule: *pāre madhye ṣaṣṭhyā vā*[14] is a peculiar type. Therefore, it is stated in a different group in the beginning. this rule allows two types of CP i.e. *Pāregaṅgam* and *gaṅgāpāram* (*AV* and *ṣaṣṭhītatpuruṣa*) for a single expression. Side by side, this rule also teaches the CP and sentence optionally.

Amongst the 13 rules which are solely meant for the derivation of CP-words, 3 are common to any section of CP, [15] while the rest are meant for the *AV*-chapter alone.

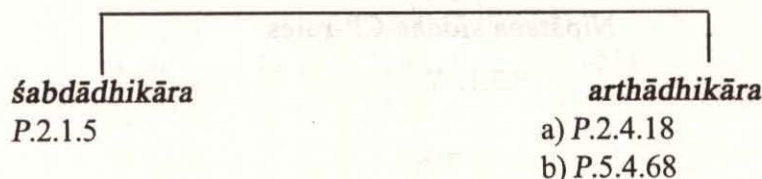
In the process of reorganising the *AV*-rules, it is observed that atleast two rules, [16] appearing in the other sections of SK, should be accomodated in this chapter. The rule: *Sub amantrite parangavatsvare* (*P*.2.1.2), appearing in the *svaraprakaraṇa* of *SK*, is needed here for the *anuvṛtti* of *sup* in the rule: *Saha supā* (*P*.2.1.4). In doing so, the rule: *Saha supā* can be easily understood without the help of *vṛtti* by causing no damage to the original section where it occurs. In fact, all the rules which teach accent to the CPs, can be incorporated in their respective CP-sections. The rule: *kṛttaddhitasamāsāśca* (*P*.1.2.45) is needed here for *prātipadikasaṁjñā* to all CPs. Unless the CP is designated as *prātipadika*, the *sup* cannot be derived by the rule: *Supo dhātuprātipadikayoḥ* (P.2.4.7). By accomodating this rule in *AV*-chapter also, the word *prātipadika* can be obtained through *anuvṛtti* from *P*.1.2.45, appearing in the *ajantapulliṅga*-section, by the virtue of *cakāra* mentioned in this rule

The above suggested classification can be represented through following tables:

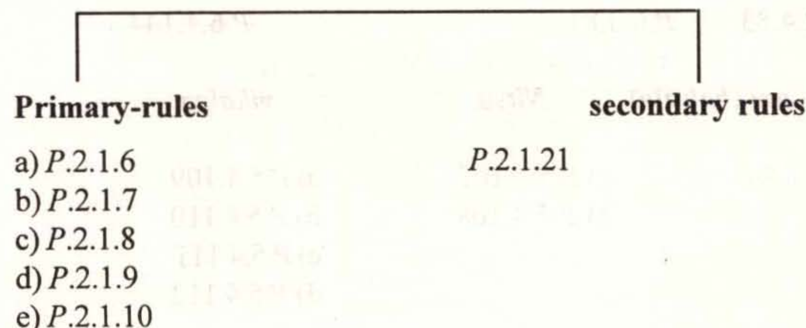
T-1
Rules common to all sections of CP



T-2
AV-adhikāra-rules



T-3
Nitya-CP-rules



T-4
Optional-CP-rules

CP/ sentence option	CP/sentence option and CP/CP option
a) *P*.2.1.12	*P*.2.1.18
b) *P*.2.1.13	
c) *P*.2.1.14	
d) *P*.2.1.15	
e) *P*.2.1.16	
f) *P*.2.1.19	
g) *P*.2.1.20	

T-5
Nipātana siddha-CP-rules

P.2.1.17

T-6
CP-word-derivative-rules

Sup>am	***Saha>sa***	***Samāsānta-tac-suffix***	***Ti-lopa***
P.2.4.83	*P*.6.3.81		*P*.6.4.144

sup-am (bahula)	***Nitya***	***vikalpa***
P.2.4.84	a) *P*.5.4.107	a) *P*.5.4.109
	b) *P*.5.4.108	b) *P*.5.4.110
		c) *P*.5.4.111
		d) *P*.5.4.112

On the basis of the above discussion and the classified Tables, the *AV*-rules can be rearranged in the following order within seven slabs: (The Numbers occurring first at the right side of the slab, refer to A-numbers, and the Numbers after the oblique refer to *SK*).

Rules Applicable to all CP-Sections

1. *Samarthaḥ padavidhiḥ* (2.1.1/647)
2. *Prak kadārat samāsaḥ* (2.1.3/648)
3. *Sub amantrite parāṅgavatsvare** (2.1.2/3656)
4. *Saha supā* (2.1.4/649)
5. *Kṛt taddhitasamāsāś ca** (1.2.46/179)
6. *Supo dhātuprātipadikayoḥ* (2.4.71/650)
7. *Prathamānirdiṣṭam samāsa upasarjanam* (1.2.43/653)
8. *Upasarjanam pūrvam* (2.2.30/654)
9. *Ekavibhakti cāpūrvanipāte* (1.2.44/655)
10. *Gostriyor upasarjanasya* (1.2.48/656)

***Adhikāra*-Rules in *AV*-Section**

11. *Avyayibhāvah* (2.1.5/651)
12. *Avyayibhavaś ca* (2.4.18/659)

***Nityavidhi*-Rules in *AV*-Section**

13. *Avyayam vibhakti-------- vacaneṣu* (2.1.6/652)
14. *Yathā sadṛsya* (2.1.7/661)
15. *Yāvad avadhāraṇe* (2.1.8/662)
16. *Sup pratinā mātrārthe* (2.1.9/663)
17. *Akṣaśalākāsaṁkhyāpariṇā* (2.1.10/664)
18. *Anyapadārthe ca saṁjñāyam* (2.1.21/675)

Vibhāṣāvidhi-Rules in *AV*-Section

19. *Vibhāṣā* (2.1.11/655)
20. *Apaparibahir añcavaḥ pañcamyāḥ* (2.1.12/666)
21. *Āṅmaryādābhividhyoḥ* (2.1.13/667)
22. *Lakṣaṇenabhipratiabhimukhye* (2.1.14/668)
23. *Anur yat samayā* (2.1.15/669)
24. *Yasya cayamah* (2.1.16/670)
25. *Saṁkhyā vaṁśyena* (2.1.19/673)
26. *Nadibhiś ca* (2.1.20/674)

Rules Prescribing More Than one *CP* for A Single Expression

27. *Pāra madhye ṣaṣṭhyā vā* (2.1.18/672)

Nipatana Siddha-Rules in AV-Section

28. *Tiṣṭhadguprabhṛtīni ca* (2.1.17/671)

Derivative Rules in *AV*- Section

29. *Nāvyayībhāvād ato mtvapañcamyaḥ* (2.4.83/657)
30. *Tṛtīyāsaptamyor bahulam* (2.4.84/658)
31. *Avyayībhāve cākale* (6.3.81/660)
32. *Samasāntaḥ* (5.4.68/676)
33. *Avyayībhāve śaratprabhṛtibhyaḥ* (5.4.107/677)
34. *Anaś ca* (5.4.108/678)
35. *Napumsakād anyatarasyām* (5.4.109/680)
36. *Nadi paurnamāsyagrahāyaṇībhyah* (5.4.110/681)
37. *Jhayah* (5.4.111/682)
38. *Gireś ca senakasya* (5.4.112/683)
39. *Nastaddhite* (6.4.144/679)

The above mentioned rearrangement is different from that of *A* and *SK*. But this arrangement is not adopted haphazardly. it is quite logical, and supported with certain justification. Let us now observe and critically analyse the variations made in this reorganisation:

S-1) The rules which are applicable to CPs in general, and appear in the *AV*-section, are recorded in the first slab to serve as an Introduction to the whole *CP*-section. In fact, such rules which are available in other CP-sections, should also be gathered in one place to form a new Introductory section. In the *AV*-section, nine rules are common to all *CPs*. Therefore, they are cited before the section-heading rule: *Avyayībhāvaḥ* (*P*.2.1.5), with a single exception i.e. since there are some *nitya-CPs*, in this section, the rule : *Vibhāṣā* (*P*.2.1.11), which is also common to all *CPs*, is mentioned after the rules which teach *nitya-CPs*. Interestingly, two more rules: *P*.2.1.2 and *P*.1.2.46, which appear out of the *CP*-sections, and star (*) marked in the tables as well as in the slabs, are included in this Introductory-slab for the convenience of a layman. These two rules are incorporated here for the *anuvṛtti* of *sup* in *P*.2.1.3, and for availing *prātipadikasaṁjñā* to all *CPs*, respectively.

S-2) The second slab contains two rules. The rule: *Avyayībhāvaś* ca (*P*.2.4.18) teaching neuter-gender, is mentioned immediately after the section-heading-rule: *Avyayībhāvaḥ* (*P*.2.1.5), because, it is also an *adhikāra-rule,* applicable to the whole *AV*-section.

S-3) In the third slab, six rules which prescribe *nitya-CPs*, are listed. Here a prominent change is made by placing the rule: *Anyapadārthe* ca *saājñāyām* before the *Vibhāṣādhikāra* by

violating the order of the *A* and *SK* both. Because, otherwise, *nityatva* of this rule cannot be logically explained. In the *SK*, however, we have to depend on the *vṛtti* for this purpose. The *anuvṛtti* of *nādibhiḥ* to this rule can be obtained from the *Nādibhis' ca* (*P*.2.1.20) by the *apakarṣa*-principle.

S-4) In the next slab, eight rules are enlisted, headed by the rule: *Vibhāṣā* (*P*.2.1.11). These rules teach *CP* optionally by allowing the use of sentence side by side.

S-5) In the fifth slab, a single rule is recorded which allows two *CPs*. Simultaneously for a single expression. The rule: *pāre madhye ṣaṣṭhyā vā* stands for two options i.e. for two alternative *CPs*, and for the use of sentence and *CP* side by side.

S-6) The next slab also contains a single rule, which is of a peculiar nature. The rule: *tiṣṭhadgu-prabhṛtini ca*, teaches CP. where the complete-word is a *nipātana*. Since this is a case of *nipātanasiddha-CP*, it is stated separately in the list.

S-7) In the final slab, all such rules of *AV*- chapter are recorded, which are only meant for the derivation of *CP*-words. They have nothing to do with the prescriptory part of the *CP* proper. These rules prescribe *am* for *sup*, *sa* for *saha*, *samāsāntatāṇ* and elision of *ti*. The present slab of eleven rules, also contains the *adhikāra*-rule: *samāsāntaḥ*, facilitating the *tac* suffix at the end of the concerned *CP*-words. The rules which teach *am* for *sup* and *sa* for *saha*, are mentioned first in the slab followed by all the rules prescribing the suffix *tac*, either invariably or optionally. these rules are again followed by a single rule: *nas taddhite*, which prescribes the elision of *ti* for the words designated *bha*, ending with *n*.

From the above analysis, it becomes clear that though Bhaṭṭojī Dīkṣita has many a times violated the Pāṇinian scientific-principles like *anuvṛtti, apakarṣa, adhikāra, niyama, atideśa, utsarga-apavāda, purvāpara, siddha-asiddha, antaraṅga-bahiranga, varṇa-aṅga* and *vipratiṣedha* etc., still he has made our job easier by providing us a subjectwise-chapterisation of *A*-rules. Thus, a student, desiring to study *samāsa*, need not go through the complete *A*. In the *samāsa* also, a student, interested to know about *avyayībhāva*, need not bother about rest of the *CP*-chapters. He can do so only by concentrating on the concerned chapters of *SK*. However, it would have been excellent, if Bhaṭṭojī could have made those chapters by without side-tracking the aforesaid Pāṇinian techniques. Had it been the case, there would have been no need of the *vṛttis* to understand the *SK*.

Hence, an attempt has been made in this approach-paper to present a topicwise-classification of the *A*-rules (*AV-Ch*) without disturbing the research oriented Pāṇinian-devices as far as possible. However, this humble effort can be regarded as a model for rest of the chapters in general and the *CP*-chapters in particular.

The Computer-experts may think further in this direction to find out the accurate link between the artificial intelligence and Pāṇini's grammar. They may develop a computer-friendly *A*, out of the techniques adopted in the present study.

Notes and Reference

1. *Mālavikāgnimitram*, 1.2
2. *P*.2.1.1, 2.1.3-5, 2.4.18, 2.4.11, 5.4.68
3. *P*.1.2.43-44.
4. *P*.2.1.6-10, 2.1.21.

5. *P*.2.1.12-16, 2.1.19-20
6. *P*.2.1.18.
7. *P*.2.1.17.
8. *P*.1.2.48, 2.2.30, 2.4.71, 2.4.83-84, 5.4.107-112, 6.3.81, 6.4.144 .
9. *P*.2.1.1., 2.1.3, 2.1.11, 5.4.68.
10. *P*.2.1.5., 2.4.18.
11. *P*.2.1.6-10
12. *Anyapadārthe ca saṁjñāyām* (*P*.2.1.21)
13. *Vibhāṣādhikāre pi vākyena saṁjñānavagamad iha nityāśamasaḥ*, *SK* on p.2.1.21.
14. *P*.2.1.18.
15. *P*.1.2.48, 2.2.30 and 2.4.7.
16. *P*.1.2.46, 2.1.2.

APPENDIX

१. पदसम्बन्धी यो विधिः स समर्थाश्रितो बोध्यः।
२. 'कडाराः कर्मधारये' इत्यतः प्राक् समास इत्यधिक्रियते।
३. सुबन्तमामन्त्रिते परे परस्याङ्गवत्स्वरे कर्त्तव्ये।
४. सुबन्तं समर्थेन सह समस्यते।
५. कृत्तद्धितान्तौ समासश्च प्रातिपदिकसंज्ञाः स्युः।
६. धातयोरवयवस्य सुपो लुक् स्यात्।
७. समासशास्त्रे प्रथमा निर्दिष्टमुपसर्जनसंज्ञं स्यात्।
८. समासे उपसर्जनं प्राक् प्रयोज्यम्।
९. विग्रहे यन्नियतविभक्तिकं तदुपसर्जनसंज्ञं स्यात्, न तु तस्य पूर्वनिपातः।
१०. उपसर्जनं यो गोशब्दः स्त्रीप्रत्ययान्तं च तदन्तस्य प्रातिपदिकस्य ह्रस्वः स्यात्।
११. अधिकारोऽयम्।
१२. अयं नपुंसकं स्यात्।
१३. अव्ययं समर्थेन सह समस्यते, सोऽव्ययीभावः।
१४. असादृश्य एव यथाशब्दः समस्यते।

१५. यावदित्येतदव्ययम् अवधारणे वर्तमानं सुपा समस्यते सोऽव्ययीभावश्च।
१६. मात्रार्थे वर्तमानेन प्रतिना सुबन्तं समस्यते, अव्ययीभावश्च समासः।
१७. अक्षशब्दः शलाकाशब्दः संख्याशब्दश्च परिणा सह समस्यते।
१८. अन्यपदार्थे विद्यमानं सुबन्तं नदीभिः सह नित्यं समस्यते संज्ञायाम्।
१९. अधिकारोऽयम्, एतत् सामर्थ्याद् एव प्राचीनानां समासत्वम्।
२०. अप–परि–बहिरञ्चु–इत्येते सुबन्ताः पञ्चम्यन्तेन विभाषा समस्यन्ते।
२१. एतयोरान् पञ्चम्यन्तेन वा समस्यते, सोऽव्ययीभावः।
२२. आभिमुख्यद्योतकावभिप्रती चिह्नवाचिना सह प्राग्वत्।
२३. अनुर्यस्य सामीप्यवाची तेन लक्षणभूतने सह विभाषा समस्यते।
२४. यस्य दैर्ध्यमनुना द्योत्यते तेन लक्षणभूतेनानुः समस्यते।
२५. वंश्यवाचिना सह संख्या वा समस्यते।
२६. नदीभिः सह संख्या प्राग्वत्।
२७. पारमध्यशब्दौषष्ठ्यन्तेन सह वा समस्येते।
२८. तिष्ठद्ग्वादयः समुदाय एव निपात्यंन्ते।
२९. अदन्ताद् अव्ययीभावात् सुपो न लुक्, तस्य तु पञ्चमी विना अमादेशश्च स्यात्।
३०. अदन्ताद् अव्ययीभावात् तृतीयासप्तम्योर्बहुलं अम्भावः स्यात्।
३१. सहस्य सः स्यात् अव्ययीभावे, न तु काले।
३२. अधिकारोऽयम्, आपदपरिसमाप्तेर्ये प्रत्यया विहितास्ते समासस्यान्तावयवा एकादेशा भवन्ति, तद्ग्रहणेन गृह्यन्ते इति वेदितव्यम्।
३३. शरदादिभ्यष्टच् स्यात् समासान्तोऽव्ययीभावे।
३४. अन्नन्तादव्ययीभावाट्टच् स्यात्।
३५. अन्नन्तं यत्क्लीवं तदन्तादव्ययीभादृज्वा स्यात्।
३६. नदीपौर्णमास्याग्राहयणी – इत्येवामन्ताद् अव्ययीभाट्टच् स्यात्।
३७. झयन्तादव्ययीभावाट्टज् वा स्यात्।
३८. गिर्यन्तादव्ययीभावाट्टज्वा स्यात्।
३९. नान्तस्य भस्य टेर्लोपः स्यात् तद्धिते।

8

REORGANIZATION OF CONCEPTUAL FRAMEWORK IN SANSKRIT POETICS : SOME TENTATIVE SUGGESTIONS

R. S. Pathak

Poetics is one of the three important branches of learning in which ancient Indian scholars have made significant contributions, the other two being philosophy and grammar. Ancient Indian scholars have made several exploratory, but penetrating, efforts to thrash several issues pertaining to the conception, creation and reception of poetry. A study of Sanskrit poetics from Bharata to Paṇḍitarāja Jagannātha reveals the existence of a well-developed poetics in India, with a rigorous scientific method for description, analysis and classification of concepts and categories. Thomas Munro observes:

> ... from the earliest historic times, oriental philosophers, rulers, priests and diviners were meditating on problems much like those which challenged [the] Western mind. Indian ... sages were meditating on arts and their potential values for man about the same time that Pythagoras, Plato and Aristotle were doing so in the West. ... A comparison of Eastern and Western thought shows many surprising resemblances. [1]

Munro speaks highly of the "comprehensive, thorough and systematic" point of view enshrined in Indian poetics. The great works produced by ancient Indian scholars, says he, bear

witness to the will and ability to develop a certain aesthetic theory in great detail, relating it to a metaphysical world view on the one hand and to a considerable amount of empirical data on the other, their conclusions being the outcome of a "long , close professional observation and experience of art." [2] It cannot be maintained that these scholars have said the last word on the various issues or have said it always clearly or consistently, but they have certainly dealt with some of the fundamental issues pertaining to poetic expression very ably.

There are, however, certain blind spots and hazy areas in Sanskrit poetics, which should not be lost sight of. For example, at times analysis and classification in it get bogged down in verbal analyses and purely rhetorical preoccupations. The insights of Sanskrit poetics have remained largely unexplored owing to grave obstacles to communication. Its treatises are in Sanskrit and are generally written in a terse and difficult style. The texts bristle with linguistic technicalities and are not always free from obscurity. Their wealth of details, mystical dross, quaint terminology and obstruse discussions would create barriers to a reader who is not well-versed in Sanskrit and has not been properly initiated to this type of study.

The principles of the eight schools *(sampradāyas)* of Sanskrit poetics were formulated independently of each other and are believed to "have values assigned to them according to their relations with the two theories of *rasa* and *dhvani.*" [3] But on several occasions the various schools seem to militate against each other, which also presents a confusing picture. Although serious attempts were made by scholars like Mammaṭa and Paṇḍitarāja Jagannātha to systematise and harmonize different views, yet their allegiance to the *rasa-dhvani* theory has tilted the balance and much needs to be done on modern scientific lines. The *rasa-dhvani* theorists' injunction to identify beauty only with the aesthetic

principle involved in the technical emotional element, i.e. *rasa* " narrows down the scope of poetry." [4] The copious knowledge of and hair-splitting classifications by these scholars are awe-striking. An average reader will find himself lost in, for example, ten thousand four hundred and fifty-five varieties of *dhvani*. [5] Moreover, as Daniel Ingalls points out, "The word *rasa* possesses an ambiguity of denotation." [6] The last great Indian poetician Paṇḍitarāja Jagannātha himself admits ungrudgingly that the term *rasa* should not be bandied about recklessly. He also feels that the evaluation in terms of the *rasa-dhvani* theory should not come first in the process of literary judgement and that it should be preceded by an analysis of diction and other linguistic features if the judgement is to be valid. [7] This is not to undermine the significance of these great theories spelt out by Indian scholars. But there can be no denying the fact that a more balanced and objective approach will yield more reliable standards for evaluation of both content and form in poetry. Fortunately, the situation is not very dismal. The great Russian scholar Todorov finds in Sanskrit scholars' exhaustive classifications specimens of remarkable taxonomic hierarchical categorization. [8] The ingenuity used by ancient Indian scholars to find varieties of figures of speech *(alaṅkāras),* for example, with subtle differences in shades of meaning is undeniable. Taking cognizance of the steady enumeration of figures of speech from four in Bharata (5th C. B.C.) to one hundred and twenty- five in Appaya Dīkṣita (17th C.), Ingalls remarks :

> In the analysis of poetic figures of speech (*alaṅkāras*) the Sanskrit critics surpass the Greeks and the Romans. They surpass them not only in subtlety but also in understanding, for the Sanskrit analysis is based directly on poetry whereas the Greeco-Roman analysis was based in the first instance on oratory. Our

> Western rhetoric centres its attention on the manner of presentation: on word order, connection of parts, emphasis, and emotional effect. The science of *alaṅkāra* is connected rather with image-building, with shades of similarity and with the techniques of overtone or suggestion. [9]

For a long time figures of speech were regarded in India as the most important component of poetry. Originally, the concept of *alaṅkāra* was very comprehensive and designated any factor that produced poetic beauty. [10] According to Bhāmaha, the body of poetry never shines without proper adornment. Just as the face of a damsel, though beautiful, lacks lustre if unadorned, so is poetry.[11] Later *Alaṅkāravādins*, however, concentrated attention on figures, devoting the bulk of their writings to this subject, which encouraged the tendenecy of piling figures on figures' head on the part of some poets. The later scholars on poetics were fond of inventing new figures, discovering subtle points of difference in the already existing ones on the basis of logic and grammar and giving them new names, so that in the end the whole *alaṅkāra* system degenerated into scholastic exercise in multiplication and complication based on hair-splitting differences. They thought that the art of expression could be reduced to a system as easy as grammar.

II

Ānandavardhana, in the ninth century, emphasised that a figure should be ancillary and born with *rasa*. It should be naturally and easily introduceable and the poet should not be required to pause to make a special effort to effect it. Ānandavardhana remarks :

> The consideration that it [*alaṅkāra*] is only a means to the delineation of *rasa* and that it is never an end in itself; the necessity of employing it at the right-time, the absence of overenthusiasm on the poet's part in pressing it too far; and finally, his keen watch-fulness in making sure that it remains a secondary element, only these are the various means by which figures like *rūpaka* become accessories [of the suggested *rasa*]. [12]

A merely pretty nonfunctional figure is compared to a removable ornament like a jewelled wristlet or hairpin, if it is not born of the concretization of rasa *(rasākṣipta).* [13] An ornament *(alaṅkāra)* would make sense, according to Anandavardhana, only when there is something or some one *(alaṅkārya)* of which it is the ornament. [14] Using uncalled for embellishment is likened to decorating a dead body. [15] The principle of embedding figures has been brilliantly explained by Abhinavagupta. The extended poetic continuum, says he, integrates figurative embellishments like flowing water whose ripples occasionally glint by catching light. [16] Figures are generally like external ornaments on the body, he adds, but can sometimes be like the *kumkuma* smeared for beauty on it, when they are organic and structural. [17]

Incidentally, the attitude of early Indian scholars to embellishment in poetry is not much different from that of the eighteenth - century English writers to ornamental language. To the Romantics, however, as to the *dhvani* theorists, a figure is a mode of apprehending reality, a way of creating meaning and of expressing what otherwise cannot be expressed effectively. Wordsworth, for example, is against the use of what he calls "transitory and

accidental ornaments", though poetic language, he holds, "upon fit occasion" could be "dignified and variegated, and alive with metaphors and figures." [18] According to Coleridge, figures are not merely billiard balls but molecules" and must serve an organic purpose:

> ... images however beautiful, though faithfully copied from nature, and as accurately represented in words, do not themselves characterize the poet . They become proofs of original genius only as far as they are modified by a predominent passion; or by associated thoughts or images awakened by that passion; or when they have the effect of reducing multitude to unity, or succession to an instant; or, lastly, when a human and intellectual life is transferred to them from the poet's own spirit, which shoots its being through earth and sea and air.

Although the French Symbolists aim at conveying meaning through imagery, they, too, are against figures of speech for their own sake. Talking in a different context, Paul Vale'ry, for example, remarks: "It is no use dazzling or surprising me at certain points only ....". He further remarks:

> Even the accumulation of grand effects, astonishing images and epithets, wonderfully fetched from afar, and compelling us to itself, obscures the *whole* of the poem--- the father's genius is fatal to the child. Too great a variety of values, the use of too much rare knowledge, too frequent and systematic starts and surprises, give us the idea of a man intoxicated by his abilities and developing them in every possible way, not in the style

> and order of a single design but in the bounded space of every mind's inexhaustible incoherence. [20]

Thus the Romantics and the Symbolists, like the *dhvani* theorists, despite their differences, are of the view that inessential embellishment is not a quality of good poetry. To them, feeling is always the test of figurative imagery. Figures which do not arise from genuine feeling, are vicious. They all feel that figures should contribute to the total effect of a poem and should not be detachable.

A mention may also be made at this point of the modern thinking on the relevance of figures of speech in poetry. Embellishments are no longer looked down as something superadded to poetry. As Philip Rawson observes, a figure is not "something superfluous, inessential, as trimming which adds nothing to the work but only obscures its beauty; " it is "a functional aspect of art, embedded in it, not a gratuitous extra."[21] The recent thinking on poetic language has clearly shown that a figure is integrated to the subject matter and the poet's sensibility. Far from being something tacked on it, a figure originates from the poet's need and his creative potential. Figure are not just "surplusage" or "a narcotic spell on the pedestrian intelligence ", as Walter Peter would like us to believe [22]. They are "feeling vectors."[23] John Middleton Murry objects to holding "the conception that the metaphor is in any useful sense of the word ornamentation." [24] To I.A. Richards, the command of metaphor is the command of life. [25] Grierson, who has discussed the true nature of figures of speech in detail, regards figures not as sugar cubes which one can shift into the pudding in greater or lesser quanity as one thinks proper:

> For figures of speech are not mere ornaments of style to be used or dispensed with at will. In their origin they are just such natural expressions of emotion as the shedding of tears, or a dog's wagging of its tail. Where they differ from these indications of feeling is in a greater distinct- ness, in being extensions of the articulate, not merely the inarticulate, expression of our feeling, variations and extensions of the use of language to communicate feelling ....[26]

Some ancient Indian poeticians had espoused a similar approach to figurative language centuries ago. Two examples will suffice here.

Rudraṭa maintained that "the poet puts extra force into his language and in order to do so, in as much as the force of language consists in its representative character, he augments the representation by multiplying his comparisions, and his language becomes figurative."[27] Kuntaka is even more concise and transparent in his approach to the language of poetry. According to him, the embellished word and its sense together *(sālaṅkṛtaśabdārtha)* constitute poetry. He clearly maintained that mere word, however charming it may be, or mere idea conveyed by it does not constitute poetry and that what makes them into poetry is the presence of strikingness. [28] An idea insufficiently expressed is 'dead' *(mṛtakalpa)* and an expression devoid of idea or expressing something other than the intended idea is 'diseased' *(vyādhibhūta)*. The ultimate source of poetry, he held, is the *vaidagdhya-bhaṅgī-bhaṇiti*, which he explained as a mode of expression depending on the peculiar turn given to it by the skill of the poet *(kavi-vyāpāra)*.[29] To Kuntaka, *vakrokti* constitutes the only possible embellishment in poetry. The

embellished and the beautifier may be described separately for the sake of analysis, but the distinction is inessential, the embellished speech itself, in its entirety, is poetry and poetic figures are not superimposed or adventitious.[30] He further argued: " If the body itself is reckoned as ornament, what would be the other thing which it can adorn at all ? Never can one climb upon one's own shoulder. "[31] In his discussion of *vākyavakratā* he made a significant comment which sums up his idea of poetic language : "Just as the excellence of a painting transcends the beauty of the various shades and colours on the canvas, the poet's art far excels the beauty of individual elements such as words, meanings, attributes and figures."[32] The views of Kuntaka on figurative language are far more convining than those of the earlier writers. They are also in consonance with the recent thinking on this issue .

III

During the recent decades a lot of interest has been shown in the language of poetry in the Western world. Scholars like Cassirer, Mukarovsky and Northrop Frye have viewed literature as language and have tried to spell out its really distinctive nature. To Vale'ry, the language of poetry is "a language within a language" and, in fact, "an art of language." [33] A modern critic Winifred Nowottny has rightly described the language of poetry as the "language at full stretch." [34] Figures of speech are important resources at the hands of the poet, which, if used judiciously, can create wonders.

Ancient Indian scholars were fully cognizant of the efficacy of figures in poetry. There is a lot of excellent material on figures and figurative language in their treatises. What is needed is to sort it out and present it properly in accordance with the

expectations and needs of the present age. The chaff has to be discarded and the grains accepted and put to effective use. The great scholar V. Raghavan, realising the relevance of this approach, maintained, while referring to hair-splitting classifications, that "Surely some of them can be discarded... differing from others only because of small shades of difference" and that the Indian scholars " have not realised that one thing can be stated in terms of another."[35]

In this scientific age, when everything else is being subjected to re-evalution, the Indian systems, concepts and categories of Sanskrit poetics will have to be re-examined with a view to finding out their current relevance and to work out an objective, consistent, systematic and economical reorganization. As Vineet Chaitanya and Rajeev Sangal have aptly pointed out in a different context, "the present state of knowledge is such that our theories are incomplete and there are vast gaps in our understanding"[36] . Some good work has already been done in India and elsewhere on the traditional Indian linguistics (Pāṇinian and other formalistic grammatical systems) and logic *(navya-nyāya).* It is high time that work on similar lines were initiated on Sanskrit poetics. The empirical nature of observations in Sanskrit treatises encourages such an approach. Regarding the nature of these texts, S.K. De remarks :

> Sanskrit poetics purportedly engaged in solving the poetic riddle, delighted, rather, in the pleasure of abstracte thought and formal calculation. Its method is suitable for the study of Botany or Zoology, but affords hardly any assistance for the understanding aesthetic facts or principles. While it has an intuitive realization of the true nature of poetry, it allowed its intellecutal prepossession to confine itself to the formulation of pedagogic

> expedients or normative abstractions. It is like studying the index of a book than the book itself. [37]

We need not agree with De that Sanskrit poeticians' works are no better than scientific textbooks and mannuals and that going through them is like reading through the index of a book than the book itself. De's comment nevertheless testifies to the scientific nature of Indian texts. A fresh look at these texts will be useful in ways more than one. It will only encourage a reorganization and re-classification of significant categories and classes. As M.A.K. Halliday has pointed out, different elements in a system are interrelated and if one of them is dropped or changes its value, the value of all the other elements undergoes a change simultaneously. [38] More recently, Daya Krishna has forcefully advocated reorganization of our conceptual frameworks in different areas of our intellectual achievements. He says:

> A different organization will result in a different way of looking at things. Hence, one of the simplest strategies for achieving conceptual innovation is to ask oneself in what ways one can possibly change the relationships between the concepts in a significant way, so as to achieve a new way of looking the phenomenon concerned. [39]

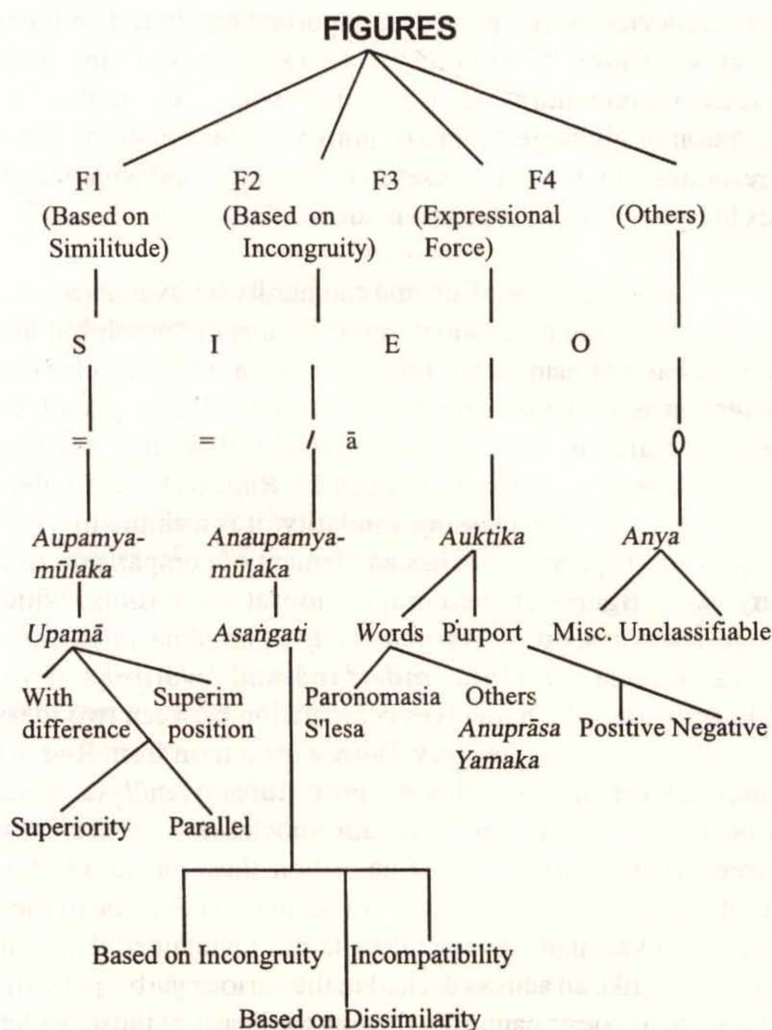
No further justification is needed to undertake reorganization, reconsideration and re-classification of important concepts of the various branches of Indian scholarship, including poetics, to make them accessible for the modern man .

IV

For practical reasons, figures of speech, so thoroughly discussed in Sanskrit poetics, are taken up for suggesting a possible way of reorganizing them for better results. The traditional classification of figures into verbal figures *(śabdālaṅkāras)*, figures of sense *(arthālaṅkāras)*, and those belonging to both the categories *(ubhayālaṅkāras)* does not serve much purpose, for the categories are open-ended and imprecise.[40] A more useful way of classifying them afresh would be on the basis of well-known parameters of Equivalence, Congruence and Divergence. Alternatively, a classification on linguistic grounds, suggested by scholars like Geoffrey N. Leech, may be worked out. Literature, says Leech, is "the creative use of language", which necessitates " the use of unorthodox or deviant forms of language". Distinguishing between different levels of linguistic function, he classifies figures of speech as formal (grammatical), phonological, orthographic, or semantic (referential or contextual), or those which can be assigned to a combination of these categories. For example, alliteration, rhyme, vowel-harmony and assonance are phonological figures, whereas parallelism, anaphora and the Renaissance tropes like antistrophe and epanalepsis are formal figures. The two categories very often overlap and cannot be always handled in isolation from each other. Moreover, there exists a dependency between formal paradigmatic and semantic figures, for, as Leech puts it, the "figurative meaning is expressed by some kind of formal deviation, whether in the selection of an inappropriate grammatical class or in the collocational foreground of a lexical item."[41] These models, however, cannot fully explain the system of figures of speech in Sanskrit.

The proper use of computers can be of great help in a systematic re-classification and reorganization of figures of speech mentioned by Sanskrit poeticians. The classification suggested here will proceed from the most general distinctions towards the most specific and from the simple and well-known to the difficult and less known, although the complete classification would give a separate and detailed characterization of each one of them. Quintilian was justified in complaining that the practice of enumerating figures of speech was an overestimated pastime among Western rhetoricians.[42] This, as we have seen, is equally true of Sanskrit rhetoricians. The inventory of figures may be potentially infinite, but serious efforts have to be made to 'control' their number, to prevent the temptation of pursuing classification to the point of boredom, bearing in mind criteria (in the scale of delicacy) for deciding which are the most significant (least trivial) distinctions.

It may be pointed out in this context that the exercise in re-classification suggested here is primarily intended to lead to the preparation of teaching material for the beginners or those people of India and elsewhere who do not have any grounding in Sanskrit. A modular approach, with nodes and built-in extensibility, may be of considerable help in this regard. The computational model that we have in mind for analysis, classification and reorganization of Sanskrit figures of speech, proposes to re-group all the figures tentatively into four classes, i.e. (a) Figures based on similitude; (b) Figures rooted in incongruity, incompatibility and dissimilitude; (c) Figures enhancing expressional force of the utterance; and (d) others. A digrammatic representation of the various figures is given below:



Figures of the category (a) above are grouped around *upamā*. This figure, with *rūpaka* and *atiśayokti,* is used by the Ṛgvedic poets (e.g. *Ṛgveda,* III. 27.15;IX.64.1). That *upamā* is the figures conceived in the earliest of times is clear from the fact that

Bharata's *Nāṭyaśāstra* makes a specific mention of this figure. As a rhetorical device, it "has played an important part in Indian literature at all times."[43] *Upamā* is, in fact, one of the basic devices which many a poet has used "to make the description of his subject more responsive to his emotions and to the reactions which reality rouses in his feelings, and which he intends to rouse in his hearers and readers." [44]

The significance of *upamā* can hardly be overstated. It is not only one of the most widely used figures of speech but also forms the basis of many other figures, which are nothing else than different turns of expression given to *upamā*. Vāmana goes to the extent of believing that the entire world of figures of sense *(arthālaṅkāras)* is the offspring of *upamā*.[45] *Rūpaka*, for example, is only another way of expressing similarity: it is a simile in a condensed form. *Utprekṣā*, too, has an element of comparision in it. Many other figures have comparision at their roots, which include: *ananvaya, upameyopamā, pratīpa, pariṇāma, tulyayogitā, prativastūpamā, dṛṣṭānta, nidarśanā* and *vyatireka*. Even *arthāntaranyāsa*, which involves comparision between two ideas, can be included in this category. Borrowing a term from Rudraṭa, we may call the figures of this category *Aupamyamūlaka*, which can be further subdivided into four subclasses-- figures with difference, those involving superimposition, those indicative of superiority, and those which convey parallelism. The scope of these figures is so vast that Appaya Dīskṣita has maintained that "The same *upamā*, like an actress decked in the various garbs, performs on the stage of poesy, capturing thereby the hearts of those readers who are well-versed in poetry." [46] This is undoubtedly one of the most important categories of figures of speech .

In the category (b) may be kept those figures which are conceived on the principles of incongruity, in-compatibility and dissimilarity . The figures belonging to these three subclasses are: *asaṅgati, vibhāvanā, viṣama, apahnuti, bhrāntimān, sasandeha, virodha, mīlita* and so on. These figures involve the principles opposite to those of the earlier category. The figures of the category (c) are those which are primarily used to enhance the communicative potential of language in poetry. Borrowing a term from Rājaśekhara, we propose to call them *auktika* . These figures can be further divided into two subclasses -- those which operate at the level of individual words, and those which have a direct bearing on the deeper purpose and finer nuances of poetic expression. The first subclass comprises *śleṣa, yamaka, anuprāsa,* etc. In the second subclass may be kept the various modes of speaking *(ukti)* employed to vent the poet's true purport. These figures are: *atyukti, anyokti, yathāsaṅkhyā, dīpaka, vyājastuti, parivṛtti, bhāvika, paryayokta* and so on. These figures may be regarded as "unique deviations." [47] which are so typical of the language of poetry. All those figures which cannot be included under the categories (a), (b) and (c), may be kept in category (d) . It may subsume figures like *rasavad, preyas* and *ūrjasvin* (not accepted by all poeticians) and *saṁsṛṣṭi* and *saṅkara* of Mammaṭa, which need not be introduced in an introductory course in Sanskrit figures of speech.

Lastly, it should be remembered that rearrangement, reorganisation and re-classification of Sanskrit figures is not an easy job. In each of them certain significant logical, epistemological and semantic considerations are involved. A useful division can be made between figures operating at a deeper level and those related to 'surface' aspects of a sentence or verse. We can prepare a cline in each category in respect of both utility and recurrence. Cross-

referencing, indexing, and specifications of features on the line of semantics and preparation of tree-digrams may go a long way in making the reorganisation suggested above more intelligible and useful. Simplification should be attempted but without distorting or glossing over or wishing away essential facts. The well known methodological principles of selection, grading, staging and so on may prove to be considerably helpful. It would also be useful to introduce as and where desirable operational symbols, choice markers and optionality indicators to ensure ease in functioning and to maximize the usefulness of a process-based approach like this. The future of computational analysis, reorganization and re-classification is bright, but no computer can take us beyond the competence of the computer user and the programmer.

Notes & References

1. Thomas Munro, *Oriental Aesthetics* (Cleveland, 1965), p. 11.
2. Ibid., pp. 74-75.
3. A. Sankaran, *Some Aspects of Literary Criticism* (Madras, 1929), p. xix.
4. P.C. Lahiri, *Concepts of Rīti and Guṇa in Sanskrit Poetics* (Dacca, 1937), p. 115.
5. Cf. Mammaṭa, *Kāvyaprakāśa*, 4.44.
6. Daniel H.H. Ingalls, *An Anthology of Sanskrit Court Poetry* (Cambridge, Mass., 1965), p.14.
7. Paṇḍitarāja Jagannātha, *Rasagaṅgādhara* (Kavyamālā ed.), pp. 414-15.
8. Tzvetan Todorov, *Symbolism and Interpretation* (French ed. 1973; English Trans. 1981).
9. Ingalls, *op. cit.*, p. 12.

10. Cf. Daṇḍin : काव्यशोभाकरान् धर्मान् अलङ्कारान् प्रचक्षते। 2.1
    Vāmaṅa : सौन्दर्यम् अलङ्कारः। काव्यालङ्कारसूत्रवृत्तिः, 1.1.2-
    Bhoja also used '*alaṅkāra*' in a comprehensive sense.
11. Bhāmaha, *Kāvyālaṅkāra*, 1.13; 4.58.
12. Ānandavardhana, *Dhvanyāloka*, 2.16-17.
13. Ibid., 2.6.
    This view has been replicated in *Kavyaprakasa*, 8.67.
14. Ānandavardhana's views in this respect are, as we will see, different from those of Kuntaka.
15. Abhinavagupta, *Dhvanyālokalocana*, p. 75.
16. Abhinavagupta, *Abhinavabhāratī*, II, p. 401.
17. *Locana*, pp. 117-18.
18. *Literary Criticism of Wordsworth*, ed. P.M. Zall (University of Nebraska Press), pp. 53, 47-48.
19. Coleridge, *Biographia Literaria*, ed. J. Shawcross (OUP, 1907), II, pp. 16-17.
20. Paul Vale'ry, *The Art of Poetry* (Vintage Books, 1961), pp. 288-89.
21. Philip Rawson, "An Exalted Theory of Ornament : A Study in Indian Aesthetics", in Harold Osborn (ed.), *Aesthetics in the Modern World* (London, 1968), p. 223.
22. Walter Pater, *Appreciations* (London, 1944), pp. 14-15.
    A. E. Housman also regards similes and metaphors as "accessories" and "things inessential to poetry", *The Name and Nature of Poetry* (Cambridge, 1940), p. 14.
23. George Whalley, *Poetic Process* (London, 1953), p. 141.
24. John Middleton Murry, *The Problem of Style* (New York, 1922), p. 83.
25. See I.A. Richards, *The Meaning of Meaning* (London, 1923), pp. 343, 378; *The Philosophy of Rhetoric* (New York, 1936), pp. 90-93, 127; *The Principles of Literary Criticism* (London, 1952), p. 189.

26. Sir Herbert Grierson, *Rhetoric and English Composition* (London, 1945),. p. 55.
27. सम्यक् प्रतिपादयितुं स्वरूपतो वस्तु तत्समानमिति वस्त्वन्तरमभिदध्याद् वक्ता यस्मिँस्तदौपम्यम् ।
28. न शब्दस्यैव रमणीयताविशिष्टस्य केवलं काव्यत्वम्, नाप्यर्थस्य इति।
वक्रोक्तिजीवित,१.७ (व्याख्या)
29. Ibid., 1.42 Comm.
30. Ibid., 1.6.
31. शरीरं चेदलङ्कारः किमलङ्कुरुते परम्।
आत्मैव नात्मनः स्कन्धम् क्वचिदअप्यधिरोहति।।
Ibid., 1.13.
32. मनोज्ञफलकोल्लेखवर्णच्छायाश्रिया पृथक्।
चित्रस्येव मनोहारि कर्तुः कर्मणि कौशलम्।।
Ibid., 3.4.
33. Vale'ry, *op. cit.*, p. 64.
34. Winifred Nowottiny, *The Language Poets Use* (London, 1962), p. 123.
35. V. Raghavan, *Bhoja's Sṛṅgāraprākāśa* (Bombay: Karnataka Publishing House, n.d.), p. 359.
36. Vineet Chaitanya and Rajeev Sangal, *Natural Language Processing:* A Paninian Perspective (New Delhi, 1995), p. 13.
37. S. K. De, *Some Problems of Sanskrit Poetics* (Calcutta, 1959), pp. 18-19.
38. M.A.K. Halliday, "Categories of the Theory of Grammar", *Word* Vol. 17 (1961), pp. 256-57.
39. Daya Krishna, *Thinking Vs. Thought : Strategies for Conceptual Creativity*, p. 56.
40. It is worth remembering that Sanskrit poeticians like Ruyyaka, Rudraṭa and Bhoja themselves were not happy with the traditional classification of figures of speech. Rudraṭa, for example, divided all figures into four categories: वास्तवमूलक, औपम्यमूलक, अतिशयमूलक, दक श्लेषमूलक।

41. G. N. Leech, "Linguistics and the Figures of Rhetoric", in Roger Fowler (ed.), *Essays on Style and Language* (London, 1966), pp. 136, 147-49.
    Alexander Bain remarks that "A figure of speech is a deviation from the plain and ordinary mode of speaking, for the sake of greater effect: it is an unusual form of speech." *English Composition and Rhetoric* (London, 1987). As S.R. Levin suggests,"Many features distinguishing poetry from ordinary discourse result from the mere fact that a writer addresses himself to writing a poem". *Linguistic Structures in Poetry* (The Hague, 1962), p. 59.
42. Quoted in J.W.H. Atkins, *Literary Criticism in Antiquity,* Vol. II, p. 273.
43. M. Winternitz, *History of Indian Literature,* Vol. III, p.3.
44. J.Gonda, *Remarks on Similes in Sanskrit Literature* (Leiden, 1949) p. 117.
45. *Kāvyālaṅkārasūtravṛtti,* 4.2.1; 4.3.32.
46. उपमैका शैलूषी संप्राप्तचित्रभूमिकाभेदान् ।
    रञ्जयति काव्यरङ्गे नृत्यन्ति तद्विदाम् चेतः ।।
    कुवलयानन्द, पृ. 2
47. See B. Havranek, "The Functional Differentiation of the Standard Language", in Paul L. Garvin (ed.), *A Prague School Reader in Aesthetics, Literary Structure and Style* (Washington, 1958), pp. 1-18.

9

REORGANISING THE *RASA* - THEORY

C. Rajendran

Rasa theory, formulated by Bharata and elaborated by later thinkers like Lollaṭa, Śṅkuka, Bhaṭṭanāyaka, Ānandavardhana, Abhinavagupta, Mahimabhaṭṭa and Jagannātha Paṇḍita has several interesting ramifications. First of all, *Nāṭyaśāstra* being essentially a manual for actors, *Rasa* serves as the principle on which the entire gamut of acting, music, costume and other theatrical techniques is organised. Every thing ranging from the structure of the play to its production is correlated to *Rasa* and becomes meaningful only when viewed in this nature of *Rasa* itself, where *Rasa* is analysed with respect to its relevance to the character, actor and spectator. But the *Rasa* theory is badly in need of a reorganisation so as to suit the requirements of a modern reader for a variety of reasons. The main reason for the unsatisfactory state of affairs is the condition of the text of *Nāṭyaśāstra* itself, which is not intelligible in all its aspects, especially when it comes to technical terms. Most of the technical terms could be understood only in the context of the actual theatre, which has become extinct by now. The learned commentaries on *Nāṭyaśāstra*, like those of Lollaṭa, Śaṅkuka and Bhaṭṭanāyaka are also lost. Even the exhaustive commentary of Abhinavagupta has several lacunae. The fact that it presupposes in the reader a thorough knowledge of earlier commentaries further complicates the matter. Thus we are not at all in a position to understand several points regarding aesthetic experience as

* *I am indebted to Dr. P. Ramesh and the Computer cell of Department of Physics, Calicut University for technical help.*

conceived by Lollaṭa, Śaṅkuka and Bhaṭṭanāyaka. The re-organisation of theories of *Rasa* realisation on the basis of certain points of references, thus, becomes all the more difficult. We do indeed find a conscious attempt to present the *Rasa* theory in a systematic manner in *Rasagaṅgādhara*, where *Navyanyāya* framework is sought to be exhaustively applied to aesthetics, but the author is handicapped by the limited data at his disposal, far as he is removed from earlier authors intime. Neverthless, such later attempts also have to be pressed into service in an attempt to present the *Rasa* theory on scientific lines.

The following aspects of *Rasa* theory are identified here as suitable subject matter in the presentation of computer data-base.

i) Interpretation of *Rasasūtra*, consisting of the various approaches of Lollaṭa, Śaṅkuka, Bhaṭṭanāyaka and Abhinavagupta, highlighting the interpretation of items like *Vibhāva, Anubhāva, Vyabhicāribhāva, Saṁyoga, Sthāyin* and the actual substratum of *Rasa* in their concepts.
ii) An item-function analysis of the interpretations of *Rasasūtra* in a tabular form, highlighting the specific function of items like *Vibhāva, Anubhāva, Vyabhicāribhāva,* language, character, actor, and spectator in various interpretations.
iii) Profiles of individual *Rasas* like *Sṛṅgāra*, demonstrating their *Sthāyin, Vibhāva, Anubhāva, Vyabhicāribhāva,* colour, diety and the literary genre in which they occur.
(iv) A chart showing the obstacles of *Rasa*-realisation and how they are overcome.

It will not be out of place to mention some problems encountered by the author in preparing the above items of

data-base. The temptation to use English equivalents for technical terms like *vibhāva, anubhāva* etc. had to be abandoned right at the beginning since it would result in ambiguity in the absence of a universally accepted dictionary of technical terms. Terms like *kṛtrimasahakāri* had to be used in lieu of translation like artificial concomitant for the sake of precision even at the cost of intelligibility to an uninitiated reader. Items which are not elaborated in *Nāṭyaśāstra* or *Abhinavabhāratī* were interpreted on the basis of their treatment in *Rasagaṅgādhara.*

Greater difficulties cropped up in the preparation of the profiles of individual *Rasas*. Eventhough later authors speak about the two aspects of *vibhāva*, viz. the *ālambana* and the *uddīpana,* such a consistent demarcation is absent in Bharata and in any case, it is not maintained consistently even in later authors and had to be abandoned. *Nāṭyaśāstra*, further, is silent on some specific items like the *vibhāvas* and *anubhāvas* of *vipralambha,* as well as the colour, diety and genre of *Śāntarasa.* Another interesting point is that eventhough *Nāṭyaśāstra* is specific of the number and names of *vyabhicāribhāva*, it often mixes up *sthāyin* and *sāttvikabhāvas* with *vyabhicāribhāva* when individual *vyabhicāribhāvas* of each *Rasa* are enumerated. Thus ' *Bhāva* ' appears as *vyabhicāribhāva* for *Karuṇa* and items like *Romāñca, Sveda, Gadgada* etc. appear as *vyabhicāribhāvas* of *Bhayānaka.* Items like *asammoha, bhrama* and *capalatā* which are not even *sthāyins* or *sāattvikabhāvas,* let alone *vyabhicāribhāvas* are accorded the status of *vyabhicāribhāva* by *Nāṭyaśāstra* in the case of *Raudra, Karuṇa* and *Adbhuta* respectively. The *vyabhicāribhāva* ' *suptam* ' occurs as *Svapna* in *Vipralambha* and *Hāsya.* In such instances, I have followed the guidelines as given below.

i) Items like *asammoha*, *bhrama* etc. which are not enumerated in the list of *sthāyins*, *vyabhicārībhāvas*, *sāttvikabhāvas* are omitted in the profiles.
ii) Items which are actually *sāttvikabhāvas*, but which are enumerated as *vyabhicāribhāvas* by Bharata are shown as *vyabhicāribhāvas*, but an aesterik (*) is put on the right top of them to indicate their special status.
iii) The literary genre in which each *rasa* occurs is figured out with the help of works like *Daśarūpaka* also.

I must hasten to add that despite such problems, the data bases prepared would be certainly helpful in our attempts at re-organisation of traditional knowledge. The tabular form in which they are presented can perform versatile functions, such as answering questions like the following.

1) List the *Rasas* which occur in *Prakaraṇa*.
2) What are the *Rasas* where *nirveda* is found as a *vyabhicāribhāva*.
3) Name the green-coloured *Rasa*.
4) Whose *Rasa* interpretation treats *sthāyin* as *bhukta*.

These are only samples and examples can be multiplied.

Other related areas in *Nāṭyaśāstra* which demand computational method include Four-fold *Abhinaya*, *Mudrās*, *Karaṇas* and *Aṅgahāras* and their meaning, Grammar and *jātis*, *sandhis*, *sandhyaṅgas*, *avasthās* and *arthaprakṛtis*, *ātodyavidhi* and the like. Many of these are challenging, but do not directly concern us in the context of *Rasa* theory. A concerted attempt to prepare an exhaustive data base for *Nāṭyaśāstra* will be amply rewarding in future.

I Interpretation of *Rasasutra*

AUTHOR	*VIBHĀVA*	*ANUBHĀVA*	*VYABHICĀRIBHĀVA*	*SAṀYOGA*	*STHĀYIN*	SUBSTRATUM
1. LOLLAṬA	*KĀRAṆA*	*KĀRYA*	*SAHAKĀRĪ*	*SAMBANDHA*	*UPACITA*	*PĀTRA*
2. ŚAṄKUKA	*KṚTRIMAKĀRAṆA*	*KṚTRIMAKĀRYA*	*KṚTRIMASAHAKĀRĪ*	*ANUMĀNA*	*ANUMITA*	*NAṬA*
3. BHAṬṬANĀYAKA	*SĀDHĀRAṆĪKṚTA*	*SĀDHĀRAṆĪKṚTA*	*SĀDHĀRAṆĪKṚTA*	*BHĀVANĀ*	*BHUKTA*	*SAHṚDAYA*
4. ABHINAVAGUPTA	*VYAÑJAKĀ*	*VYAÑJAKA*	*VYAÑJAKA*	*VYAÑJANĀ*	*VYAKTA*	*SAHṚDAYA*

II Item-Function Analysis of *Rasasūtra* Interpretations

ITEM	LOLḶAṬA	ŚAṄKUKA	BHAṬṬANĀYAKA	ABHINAVAGUPTA
VIBHĀVA	*KĀRAṆA*	*KṚTRIMAKaRĀNA*	—	*VYAÑJAKA*
ANUBHĀVA	*KĀRYA*	*ṚTRIMAKARAṆA*	—	*VYAÑJAKA*
VYABHICĀRIBHĀVA	*SAHAKĀRI*	*KRTRIMAKĀRAṆA*	—	*VYAÑJAKA*
LANGUAGE	*ABHIDḤĀ*	*ABHIDHĀ, AVAGAMA BHOGA*	*ABHIDHĀ, BHĀVANĀ VYAÑJAṆĀ*	*ABHIDHĀ, LAKṢAṆĀ*
CHARACTER	SUBSTRATUM	SUPERIMPOSED ON ACTOR	*UNIVERSALISEḌ*	UNIVERSALISED
ACTOR	SECONDARY SUBSTRATUM	SUPERIMPOSED BY CHARACTER	—	MEANS OF COMMUNICATION
SPECTATOR	—	INFEROR	ENJOYER	SUBSTRATUM OF *RASA*

III Profiles of *Rasa*

RASA	STHĀYIN	VIBHĀVA	ANUBHĀVA	VYAbHICĀRĪBHĀVA	COLOUR	DIETY	CENTRE
1. ***Śṛngāra*** (i) ***Saṁbhoga***	*Rati*	Pleasant Season, Garlands, Unguents, Ornaments, Dear people, Sensual Objects, Mansions, Garden, Sweet Music, Plays ports	Clever glances, movements of eyebrows, graceful movements of limbs.	*Nirveda, Glāni, Śaṅkā, Asūyā, Mada, Śrama, Dainya, Cintā, Moha, Smṛti, Dhṛti, Vrīḍā, Capalatā, Harṣa, Āvega, Jaḍatā, Garva, Viṣāda, Autsukya, Supta, Vibodha, Amarṣa, Avahittha, Mati, Vyādhi, Unmāda, Māraṇa.*	Green	*Viṣṇu*	*Nāṭaka, Prakaraṇa, Bhāṇa Samavakāra, Vīthī, Īhāmṛga*
(ii) ***Vipralambha***	-do-	-do-	-do-	*Nirveda, Glāni, Asūyā, Śrama, Cintā, Autsukya, Nidrā, Supta, Vibodha, Vyādhi, Unmāda, Apasmāra, Jaḍatā, mārana*	-do-	-do-	-do-
2. ***Hāsya***	*Hāsa*	Unseemly dress, misplaced ornaments, impudence, covetousness, quarrel, display of deformed Limbs, Pointing the fautls of others.	Biting the lips, Throbbing of the nose and Cheeks, Opening the eyes wide, contracting The eyes, Pespiration, Colour of the face, holding the side	*Avahittha, Ālasya, Moha, Nidrā, Supta, Vibodha, Asūyā*	White	*Pramathas*	*Nāṭaka, Prakaraṇa, Prahasana, Samavakāra, Vīthī*

RASA	STHĀYIN	VIBHĀVA	ANUBHĀVA	VYABHICĀRĪBHĀVA	COLOUR	DIETY	CENTRE
3. ***Karuṇa***	*Śoka*	Curses, distress, downfall, calamity, separation from near and dear, loss of wealth, murder, imprisonment, flight, accidents, misfortunes.	Discharge of tears, lamentations, parched throat and mouth, pallor of the face, dropping of the limbs, gasping for breath, loss of memory.	*Nirveda, Glāni, Cintā, Autsukya, Āvega, Moha, Śrama, Viṣāda, Dainya, Vyādhi, Jaḍatā, Unmāda, Apasmāra Trāsa, Ālasya, Māraṇa.*	Grey	*Yama*	*Nāṭaka, Prakaraṇa, Ḍima, Vyāyoga, Samavakāra, Vīthī, Aṅka*
4. ***Raudra***	*Krodha*	Violation of modesty, abuse, insult, uttering, falsehood, harsh words, animosity, jealousy.	Making the Eye Red, Profuse Perspiration, Knitting the eyebrows, Clapping the hands, Gnashing of Teeth, Biting of lips, throbbing of cheeks, Hitting the palm with fist.	*Āvega, Amarṣa, Capalatā, Augrya, Garva*	Red	*Rudra* *Vyāyoga, Samavakāra, Vīthī*	*Nāṭaka Prakaraṇa, Ḍima,*

RASA	*STHĀYIN*	*VIBHĀVA*	*ANUBHĀVA*	*VYABVHICĀRĪBHĀVA*	COLOUR	DIETY	CENTRE
5. ***Vīra***	*Utsāha*	composure, absence of infatuation, perseverence, good tactics, humility, valour, power, aggressiveness, mighty influence	firmness, heroism, bravery, sacrifice, proficiency *Smṛti*	*Dhṛti, Mati, Garva, Āvega, Augrya, Amarṣa,*	Cream	Mahendra	*Nāṭaka, Prakaraṇa, Ḍima, Vyāyoga, Samavakāra, Vīthī*
6. ***Bhayānaka***	*Bhaya*	terrific noise, sight of apparitions the cries of jackals and owls, empty house, entry to a forest, death, murder of king's man, imprisonment, seeing /hearing/ discussing these.	trembling of hands, feet, movement of eyes, hair standing on end, pallor of the face, change of voice and tone	*Śaṅkā, Moha, Dainya, Āvega, Capalatā, Trāsa, Apasmāra, Stambha, Sveda, Gadgada, Romāñca, Vepathu, Svarabheda, Vaivarṇya.*	Black	Kāla *Prakaraṇa Ḍima Vyāyoga Samavakāra, Vīthī.*	*Nāṭaka,*
7. ***Bībhatsa***	*Jugupsā*	Seeing what is dirty and displeasing, Hearing, Seeing and discussing undesirable things.	Squeesing of all limbs, Moving the Face to and fro, Rolling the Eyes, Heattache, Anxiety, Expressing Disgust	*Apasmāra, Vega, Moha, Vyādhi, Maraṇa*	Blue	Mahākāla	*Nāṭaka Prakaraṇa, Ḍima Vyāyoga Samavakāra Vīthī*

RASA	STHĀYIN	VIBHĀVA	ANUBHĀVA	VYABVHICĀRĪBHĀVA	COLOUR	DIETY	CENTRE
8. ***Adbhuta***	*Vismaya*	Seeing a heavenly being, attainment of cherished object, going to beautiful park, temple, seeing magical tricks, and creation of Unimaginable things	Opening the eyes wide, Staring with winkless eyes, Horripi-lation, tears, perspiration, delight, uttering words of congratula-tions, making gifts, shouting ha ha, movements of hands, feet, clothes etc.	*Āvega, Jaḍatā, Aśru, Stambha, Sveda, Gadgada, Romāñca Pralaya*	yellow	Brahmā	*Nāṭaka Prakaraṇa Ḍima Vyāyoga Samavakāra Vīthī*
9. ***Śānta***	*Śama*	true knowledge detachment, purity of thought	*Yamas, Niyamas,* Meditation, Concentration, Worship, Mercy to all living things.	*Nirveda, Smṛti, Dhṛti,* etc.	-		-

IV Obstacles of Rasa

	Obstacle		Remedy
1.	**Lack of Creditability of story** (i) Ordinary story (ii) Super Natural Story	:-	(i) Hṛdaya saṁvāda (ii) Adoption of well-known Heroes LIKE RĀMA
2.	**Time-Space Conditionaing** (i) Asrelated to oneself (ii) Asrelated to others	:-	Actor's Self-concealment, Stylised Language, Lāsyaṅgas, Stage-division, *Naṭyadharmi*
3.	**Absorption in ones own feeling**	:-	Entertainment with instruments Music, Decoration, Dancers
4.	**Lack of Proper means of Communication**	:-	*Abhinaya*
5.	**Lack of clarity**	:-	
6.	**Uuimportance**	:-	The *Puruṣārtha Basis of Sthāyin*
7.	**Presence of doubt**	:-	The Combination of *Vibhāva, Anubhāva and Vyavbhicārībhāva*

10

RE-ORGANIZATION OF *DHVANI* THEORY

S. Pandurang Bhatta

The *magnum opus* of Ānandavardhana namely *Dhvanyāloka* came to be looked upon as the final authority in all literary matters by the subsequent writers on Sanskrit poetics. The theory of suggestion is presented in about 120 *Kārikās*. The full discussion is carried out in the *vṛtti* portion and the *summary* of the remarkable observations is presented in the form of memorable verses called *parikara ślokas*. An attempt has been made in this paper to reorganise the theory of suggestion using tables and graphs so that it can be easily grasped by the students of Sanskrit and other languages as well.

TABLE- 1

According to Ānandavardhana the most important element in poetry is its meaning. This meaning has two major aspects: 1) the expressed and 2) the suggested (*Dhv.*, I.2). The suggested sense is something more than the expressed sense and depends on the whole process, and not merely on its parts. therefore suggestion is compared to the beauty in girls which is distinct from the beauty of the various parts of the body (*Dhv.* I .4).

Ānandavardhana divides the suggestion into three groups: a) Suggestion of facts *(vastu - dhvani)*, b) suggestion of figures *(alaṅkāra - dhvani)*, c) suggestion of sentiment *(rasa - dhvani)*.

a) Suggested Idea

He illustrates how the suggested idea differs from the expressed idea by quoting *prakṛt gāthās*. In the first *gāthā* viz '*Bhrama dhārmika*' etc., the expressed idea encourages the monk to move about freely without any hesitation. Thus suggested idea is positive in nature. But the suggested idea is just the opposite of what is directly expressed. The suggested idea here is 'Do not come to this place hereafter'. Thus the suggested idea is negative in nature. In the second example viz '*Śvaśrūratra nimajjati*' etc., the position is reversed. Here the expressed idea is negative but the suggested idea is positive invitation. In the third example viz '*vraja mamaivaikasyā bhavantu*' etc. the expressed idea is positive but the suggested is neither positive nor negative. In the fourth example viz '*prārthaye tāvat prasīda nivartasva*' etc. the expressed idea is negative but the suggested is neutral. In the fifth example viz. '*kasya vā na bhavati roṣa*' etc. the expressed idea refers to one object whereas the suggested idea has reference to altogether different object. The maid servant warns her mistress and at the same time cleverly suggests to the husband of her mistress that he should not entertain undue suspicious about his wife. Thus it is clear that suggested sense differs from expressed sense and hence it cannot be identified with expressed sense.

b) Suggested Figure

. In the second type of *dhvani* viz '*alaṅkāra - dhvani*' intead of an idea, a figure will be suggested. In the verse cited by Ānandavardhana viz '*Lāvaṇyakānti paripūrita diṅmukhesmin* ' etc., the idea of moon - face is not directly stated but it is suggested. Only when the metaphor *(Rūpaka)* that the lady's lovely face is identical with the moon is understood, the passage will become fully meaningful. Therefore the beauty in this verse is

due to the *Rūpakālaṅkāra- dhvani*. Ānandavardhana points out the difference between *śabdaśaktimūla alaṅkāra - dhvani* and *śleṣa* (pun) in this context. As an instance of *śabdaśaktimūla dhvani* he has cited the speech of *Siṁhanāda* from the *Harṣacarita* of Bāṇabhaṭṭa; "*vṛttesmin mahāpralaye dharaṇidhāraṇāya adhunā tvam śeṣaḥ*". There are two ideas in this sentence. The one is a description of Harṣa as the capable person to look after the kingdom and the other a description of *Ādiśeṣa*. Both are based on the equivocal nature of the words used. Since the context is decisive in favour of the former sense alone, the latter becomes incoherent. In order to make the latter idea also as coherent the two ideas must be understood to related as standard of comparison and object of comparison. But here simile (*Upamālaṅkāra*) is only suggested and not at all explicitly expressed. Therefore this is an instance of *alaṅkāra - dhvani* only and it should not be mistaken for *śleṣa* or pun. In the figure *śleṣa* (pun) two ideas are simultaneq… communicated by virtue of the equivocal words used, and both the ideas will be equally plausible. In the verse '*yena dhvasta manobhavena*' quoted by Ānandavardhana as an example of *śleṣa* the last line viz '*sarvadomādhavaḥ pāyat*' may be considered in this context. We may split it as '*Sarvadā umādhavaḥ pāyāt*' meaning 'May *Śiva* the husband of *Umā* protect us always' or we may split it as '*Sarvadaḥ Mādhavaḥ pāyāt*' meaning 'May *Mādhva* protect us who is a granter of all desires'.

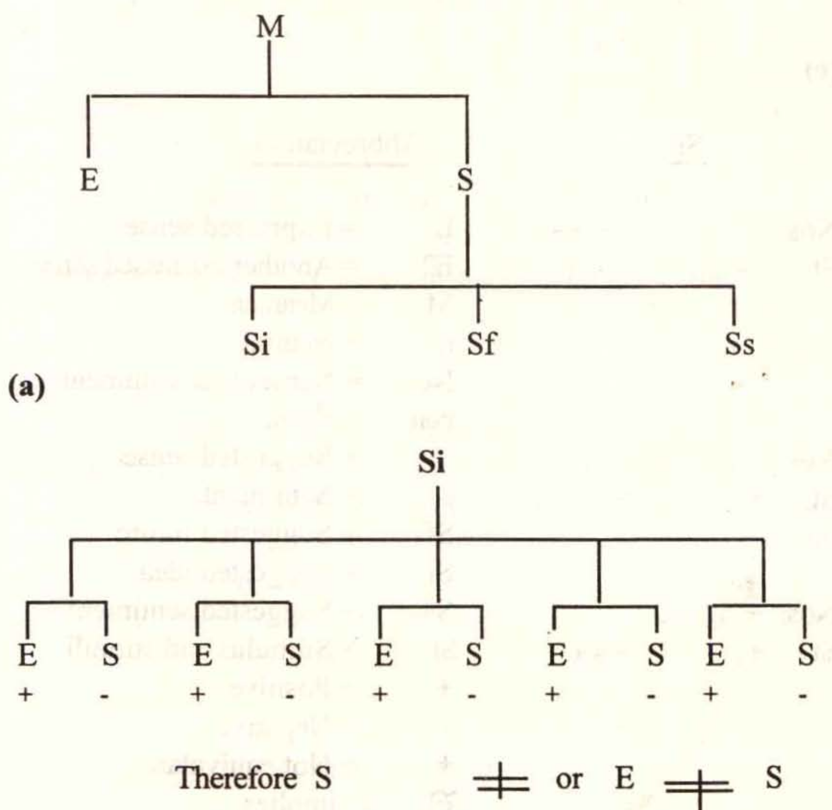
In the *alaṅkāra-dhvani* a new figure of speech is suggested besides a second idea on the basis of the equivocal words (*Dhv.*, II. 21). It is this feature (the suggestion of a new figure of speech) which marks it off from *śleṣa*.

c) Suggested Sentiments

Ānandavardhana discusses the significance of the third type of *dhvani* viz '*rasa - dhvani*' and states that the sentiments are never represented through the mention of their names. they are always communicated through a poetic description of the *vibhāvas* etc.

Re - Organization of *Dhvani* Theory

Table - a : Suggestion Defined



(b)

Sf

E ঌ Sf

Pun

E ঌ E2 Therefore Sf ≠ Pun

(c)

Ss

Nos	+	= s -
St	-	
Nos	-	
St	+	= s +
Nos	+	
St	+	= s +

Abbreviations

E	= Expressed sense
E2	= Another expressed sense
M	= Meaning
n	= Neutral
Nos	= Name of the sentiment
pun	= *Śleṣa*
S	= Suggested sense
s	= Sentiment
Sf	= Suggested figure
Si	= Suggested idea
Ss	= Suggested sentiment
St	= Stimulus and stimuli
+	= Positive
-	= Negative
≠	= Not equivalan
ঌ	= implies
E	= Belongs / Depends

Therefore s E St

TABLE - 2

Main Sub-divisions of Suggestion

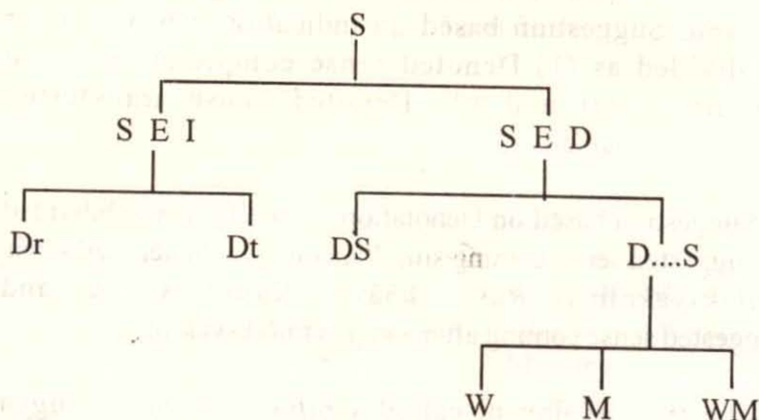
Suggestion can never function without the assistance of either *Abhidhā* (denotation) or *Lakṣanā* (Indication). Therefore we have the most fundamental division of suggestion into (1) suggestion based on indication and (2) suggestion based on denotation. Suggestion based on indication can be further sub - divided as (1) Denoted sense completely rejected (*atyantatiraskṛta*) and (2) Denoted sense transferred (*arthāntarasaṁkramita*).

Suggestion based on Denotation can be further subdivided as (1) suggested sense coming simultaneoulsy with denoted sense *(asaṁlakṣyakrama)* (*Rasa - bhāva - Rasābhāsa* etc.) and (2) suggested sense coming after a gap *(saṁlakṣyakrama).*

The type of dhvani called *saṁlakṣyakrama vyaṅgya* (suggested sense coming after a gap) can again be classified as (1) based on words *(śabda - śaktimūla),* (2) based on meaning *(arthaśaktimūla)* and (3) based on word and meaning *(ubhayaśaktimūla).* Ānandavardhana has cited *'Evam vādini devarṣau'* etc., as an example of *arthaśaktimūla dhvani.* Here the suggestion is due not to the extra ordinary power of the words, but to the meaning. In the *śabdaśaktimūla* the actual words used are vital to the suggestion and cannot be substituted by their synonyms.

TABLE - 2

Main sub divisions of suggestion



Abbreviations

Dr	= Denoted Sense Rejected
Dt	= Denoted Sense transferred
DS	= Without gap
D....S	= With gap
M	= Meaning
S	= Suggestion
W	= Word
WM	= Word and Meaning

TABLE - 3

Suggestion and other Concepts

(a) Suggestion and Indication

According to Ānandavardhana *Indication and suggestion* differ from each other with regard to their nature and subject matter. The suggested sense is determined by the contextual factors, the intonations, the facial expression etc., whereas the indicated sense is independent. In suggestion it is possible for both the meaning to occur simultaneoulsy (*asaṁlakṣya - krama*), whereas in indiçation the implied sense is always conveyed indirectly through the primary sense of the word.

The subjects of suggestion and indication are also different. The suggested sense can be an idea, a figure of speech or a sentiment whereas the meaning conveyed by indication is always an idea. Suggestion occurs even in cases where there is absolutely no expressed sense, as in the case of emotion suggested by the sound of music or the sight of dances whereas indication does not occur in these cases. Suggestion operates when there is no difficulty in understanding the primary sense whereas indication operates when there is some kind of difficulty in understanding the primary sense.

(b) Suggestion and Denotation

According to Ānandavardhana the suggested sense is different from the denoted sense. Suggestion need not always depend on words. The melody of music, gestures etc. are also suggestive of sense. The suggested sense changes according to the changes in the contextual factors but the denoted sense is

definite and fixed.The suggested sense in poetry can be fully appreciated only by men of taste whereas the denoted sense of a word can be objectively learned by any one from a lexicon.

(c) Suggestion and Inference

Suggestion is not identical with Inference (*Anumāna*). In literature there is no invariable relation between the primary sense and the suggested sense. But the inference depends on the knowledge of an invariable concomittance between the middle and the major terms of a proposition.

(d) Suggestion and Implication

Suggestion is also different from *Arthāpatti*. *Arthāpatti* implies accuracy and definiteness of the sense cognized through it; but in poetic suggestion the implied sense is rather vague and can be fully understood only by men of literary taste who can appreciate the context of situation.

Table - 3

Suggestion and other concepts

(a) Suggestion and Indication

S	≠	I
C +		C -
DS		D I
Si, Sf, Ss		i
Music		-
Dup -		Dup +

(b) Suggestion and Denotation

S $\neq$ D

S	D
Music	Words
Gestures	-
Men of Taste	Lexicons

S E D
S E I
Therefore S $\neq$ D
Therefore S $\neq$ I

(c) Suggestion and Inference

S $\neq$ In
AB- AB+

(d) Suggestion and Implication

S $\neq$ Im

Abbreviations

AB = Invariable concomittance of A and B
C = Context
D = Denotation
Dup = Difficulty in understanding Primary sense
I = Indication
Im = Implication (Arthapatti)
In = Inference
~ = Variable
—— = Constant

TABLE - 4

(a) Suggestion and *Guṇas*

Ānandavardhana interprets all concepts in relation to *Rasa*. He defines *guṇas* as attributes of *Rasa*, the principle element in poetry. He accepts only three *guṇas* viz Sweetness (*mādhurya*), Forcefullness (*ojas*), and Lucidity (*prasāda*). These *guṇas* do not reside in the manner of expression. It is not proper to say that *mādhurya* is found only where there are sweet words and few compounds and to say that *ojas* is found only in a composition abounding in long compounds. According him, *mādhurya* is found prominently in compositions where the sentiments of love - in - separation (*vipralambha śṛngāra*) and compassion (*karuṇa*) are delineated. The *ojoguṇa* is found in the sentiments like *raudra* (furious), *vīra* (heroic) and *adbhuta* (wonder). *Prasāda* is a quality which is common to all *Rasas*. Lucidity both in the words and meanings contributes to the easy grasp of every *Rasa*. According to Ānandavardhana quality has primary relationship only with the suggested emotions though it is said to be found in words, meanings, styles etc. To justify his stand Ānandavardhana cites a verse full of long compounds but which possesses *mādhurya guṇa* and which is an instance of *vipralambha - śṛṅgāra*.

He also cites Aśvatthāmā's speech from *Veṇīsaṁhāra* as an examples of *Raudrarasa* (full of *ojoguṇa*) but which has no long compounds; '*Yo yaḥ śastram bibharti śvabhujaguramadaḥ* etc. (*Dhv*).

(b) *Saṅghaṭanā* (Stylistics)

Saṅghaṭanā means the arrangement of words with or without compounds (*samāsa*) and it is of three kinds i) no compounds (*asamāsa*), ii) with medium - sized compounds (*madhyamasamāsa*) and iii) with lengthy compounds (*dīrghasamāsa*). Three alternative views are possible regarding the mutual relation of *Guṇa* and *Saṅghaṭanā*.

i) *Guṇa* and *Saṅghaṭanā* are identical.

ii) They are different and *Guṇa* is found in the substratum of *Saṅghaṭanā*.

iii) *Saṅghaṭanā* is found in the substratum of *Guṅa*.

According to Ānandavardhana the relation of *Guṇa* to *Rasa* and that of *Saṅghaṭanā* to *Rasa* must be held distinct. The relation of *Guṇa* to *Rasa* is constant and unchanging, whereas that of *Saṅghaṭanā* to *Rasa* is variable. Only particular *Guṇas* are utilized to suggest particular *Rasas*. For instance, *mādhurya* and *prasāda* may suggest only *karuṇa* and *Vipralambhaśṛṅgāra*. *Ojas* should suggest only *raudra, adbhutu* and the like, not *karuṇa* and the like. But there is no such rule governing *Saṅghaṭanā*. Any and every *Saṅghaṭanā* may be made to suggest and every *Rasa*. Even in *Śṛṅgāra*, lengthy compounds may be used as in '*anavarata*' etc. *Raudra* may be suggested without the use of compounds as in '*Yo yaḥ śastram*' etc. Therefore *Guṇas* cannot be indentical with *Saṅghaṭanā* or grounded in *Saṅghaṭanā* as their substratum. The procedure of the two should be held distinct.

TABLE - 4

(a) Suggestion and *Guṇas*

G	E	Soul (s)
f	E	Body (W and M)
Sw	E	EP
Fo	E	HT
Lu	E	AS

Contribution of Ānandavardhana

Sw, Fo, Lu	E	W and M
Sw	E	c +
Fo	E	c-
G	E	S Sentiment

(b) Stylistics

NC, Mc, Lc G = San

G ‡ San (GE San)

G ǂ San (San E G)

G' S Relation to s is __________

G' S Relation to Sn is __________

Abbreviations

As	=	All sentiments
c	=	Compounds
Ep	=	Erotic and Pathos
Fo	=	Forecefulness
G	=	Guna (literary excellence)
HT	=	Heroic and Terrible
Lc	=	Long compounds
Lu	=	Lucidity
Mc	=	Middle compounds
Nc	=	No compounds
Sn	=	Sanghaṭanā (Stylistics)
SW	=	Sweetness
W	=	Word

TABLE - 5

(a) Classification of Poetry

The quality of poetry depends on the importance given to the element of suggestion. Suggestion, by itself, is not enough in poetry; what is suggested must be important and charming. Then only it gets the designation of '*dhvanikāvya*' which is recognised as the first rate poetry by Ānandavardhana. '*Guṇībhūta - Vyaṅgya*' would apply to all instances where suggestion is present and yet not primarily important. The third category '*citra*' would apply to all such instances where in the beauty is due to the presence of ornaments (*alaṅkāras*) inspite of the absense of suggestion. Thus Ānandavardhana gave the criterion by means of which a critic can judge whether a given composition is good or bad, better or worse, and best or worst. This idea was recognised for the first time by Ānandavardhana in the history of Sanksrit literary criticism.

(b) *Rasavadalaṅkāra*

Ānandavardhana points out the distinction between the *Rasavadalaṅkāra* and *Rasa-dhvani*. *Rasa-dhvani* is instanced in poems where *alaṅkāras* etc. serve only one purpose of evoking the *Rasas*. (Dhv., II. 4), If the *Rasas* are given a secondary position by being made subordinate to the expressed meaning, we have *Rasavadalaṅkāra*. He has recognised two varieties of *Rasavadalaṅkāra* viz. pure (*śuddha*) and mixed (*saṅkīrṇa*). To illustrate the first variety he cites the verse; '*kim hāsyena na me*' etc. The main theme of the verse is the praise of a king of extraordinary valour. Therefore '*cāṭu*' or sweet flattery is the main subject matter. But there is also the sentiment of *karuṇa* in the poet's vivid description of the pathetic lot to which the widows of the

enemy have been subjected. But *karuṇa* is not the main theme here as it is delineated to heighlight the heroism of the king.

To illustrate '*saṅkīrna*' variety Ānandavardhana cites the verse '*kṣipto hastāvalagnaḥ*' etc. Śiva's glory is the main object described here. The state of women in love excited by jealousy and also the *karuṇa-rasa* in the picture of the women shedding copious tears are described here. Strictly speaking it would be a flaw on the part of the poet to describe contradictory sentiments such as love and pathos simultaneoulsy. But since both the sentiments here are only secondary to the primary subject of praise of Śiva the flaw is avoided.

(c) Equipement of the Poet

According to most of the writers on poetics the things essential to the making of a true poet are three *pratibhā* (imagination), *vyutpatti* (erudition) and *abhyāsa* (constant practice). Some writers regard *pratibhā* as the sole equipment required for the making of a genuine poet. Ānandavardhana makes it clear that if a poet has '*śakti*' (*pratibhā*), it conceals the defects that may arise from lack of *vyutpatti*, but if a poet is deficient in '*pratibhā*' and has only *vyutpatti*, the defects in his compositions are noticed at one. Ānandavardhana says that some five or six poets like Kālidāsa have been accorded the epithet '*mahākavi*'. It is the exceptional quality of their imagination that has won for them this rank.

TABLE - 5

(a) Classification of Poetry

Suggestion predominated poetry 

Suggestion subordinated poetry 

Suggestion absented poetry 

 Indicates the importance given to Suggestion

(b) *Rasavadalaṅkāra*

Ss  Sentiment Predominant

Sf  Figurative sentiment (pure)

Sf  Figurative sentiment (mixed)

 Indicates the importance given to the sentiment

(c) Equipment of the poet

p E Ta 

Er 

Pr 

Abbreviations

Er = Erudition — Indicates the importance given by Ānandavardhana

p = Poetry

Pr = Practice

Ta = Talent

TABLE - 6

(a) Advantage of Suggestions

According to Ānandavardhana if there is sufficient genius in a poet, he will succeed in infusing variety and fresh charm into his poem even while handling subjects which have been handled by the ancient poets. So long as poetic imagination functions with the support of the various types of *dhvani* and *guṇībhūtavyaṅgya.* There is no fear of the province of poetry being exhausted (*Dhv.* IV. 6.).

Some critics argue that the novelty in poets is only due to '*ukti-vaicitrya*' or variety in the manner of presentation. But Ānanda says that since matter is always inextricably connected with manner, novelty in manner necessarily implies novelty in matter too. The idea of novelty reinforces the possibility of limitless variety in poetry due to *pratibhās.*

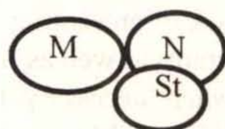
(b) Plagiarism

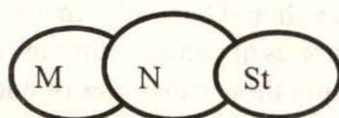
There is bound to be some coincidence amongst poets, since all great men think alike. But they should not be always regarded as deliberate plagiarisms (*Dhv.*, IV. 9.10).

There are three kinds of coincidences. The first is like that of a reflected image; the second is like that of a painted picture; and the third in like that of persons bearing resemblance in bodily features. The first kind of coincidence contains no life or body of its own. The second kind does not possess life and hence these two types are to be avoided. The third can be utilized freely because when there is a different body as well as a soul, there is no fear of mistaking the one for the other. If the poet can clothe the idea in a different garb and can infuse new life into it by introducing *Rasas* he need not be afraid of handling even themes

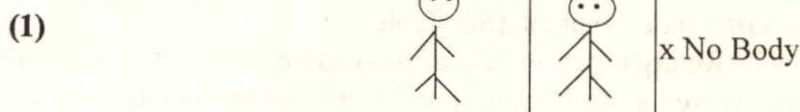
worked upon by other poets. No theme will become outworn when handled with due regard to suggestion. *Dhvanyāloka* sums up and explains all the previous speculations on the subject. The re-valuation of the earlier categories of rhetoric is one of the most outstanding contributions of Ānandavardhana to Indian poetics. By properly defining the scope of *dhvani* (suggestion) in relation to earlier concepts he was able to settle the precise importance of each in literature.

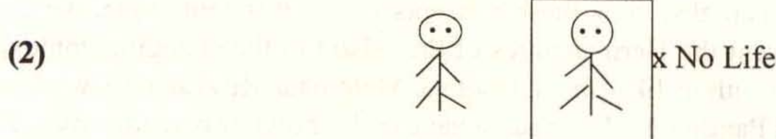
(a) Advantages of Suggestion

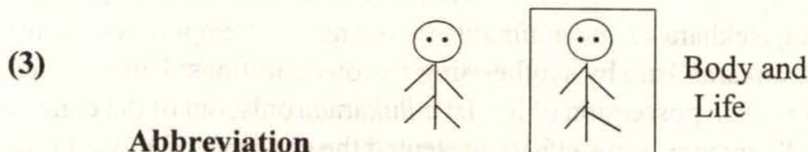




(b) Plagiarism







Abbreviation

M = Matter
N = Novelty
S = Style

11

RE-ORGANISATION OF ALAṄKĀRAŚĀSTRA

Radhavallabh Tripathi

Every *Śāstra* is in a way re-organised or re-written in each and every age. Re-organisation does not mean the violation or mutilation of its basic structures or designs. Re-Organisation of a *Śāstra* should basically involve the simple task of presenting its categories or concepts through models or diagrams as well as simplifying these categories or adding to them where necessary. For example, the topics covered in the Ist *ullāsa* of Mammaṭa's *Kāvyaprakāśa* can be presented figuratively or graphically to make the *śastra* more explicit. (See Table - 1).

Re-organisation of a *Śāstra* can be done at the structural level as well as at the conceptual level. Better models or a more feasible framework for the categories of a *Śāstra* can be evolved. We can also view these concepts with a different angle, we can present the Hermaneutics of the *Śāstra* in the changing context. The authors like Bhoja, Rudraṭa, Mammaṭa, Ruyyaka, Viśvanātha and Paṇḍitarāja Jagannātha have in their own way made novel attempts to re-organsing *Alaṅkāraśāstra* for their own times. Rājaśekhara's *Kāvyamīmāmsā* was a novel attempt to re-organise *Alaṅkāras'āstra* by synthesising various traditions. Unfortunately we are in possession of its . Ist *adhikaraṇa* only, out of the eighteen *adhikaraṇas*. Rājaśekhara presented the concepts of *Kāvyapuruṣa* and *Sāhityavidyā* in a mythological garb and he also restructured the whole design of *Kāvyaśāstra*. In our times, several pundits wrote texts in Sanskrit on *Kāvyaśāstra* imbibing new ideas and concepts and revising the earlier designs. Pt. Rewa Prasad Dwivedi

re-interprates the theory of *Alaṅkāra* in his *Kāvyālaṅkārakārikā*, and Dr. Brahmānanda Sharma terms *Rasānubhūti* as *Satyānubhūti* or the realisation of truth, and thus tries to synthesise the concept of Realism with the theory of *Rasa*.

I

The origin of *Alaṅkāraśāstra* is a very important issue. MM PV Kane and Dr. S.K. De, who have written the 'Histories' of Sanskrit Poetics have discussed this question and both of them regard Bharata as the earliest author on Sanskrit Poetics.[1] From this, it appears that *Alaṅkāraśāstra* originated from *Nāṭyaśāstra*. Ofcourse MM Kane has quoted the traditional view, [2] which certainly does not regards Bharata as the originator of *Alaṅkāraśātra*. *Kāvyaprakāśādarśa*, a commentary on Daṇḍin's *Kāvyādarśa* says -

> सुकुमारान् राजकुमारान् स्वाहुकाव्यप्रवृत्तिद्वारा गहने शास्त्रान्तरे प्रवर्तयितुमग्निपुराणादुद्धृत्य काव्यरसास्वादकारणमलङ्कारशास्त्रं कारिकाभिः सङ्क्षिप्य भरतमुनिः प्रणीतवान्।
>
> (P.V. Kane, p.3)

MM Kane also quotes *Kramanandinī*, a commentary on *Sāhityakaumudī* which also establishes Bharata's endebtedness to *Agnipurāṇa* -

> काव्यरसास्वादनाय वह्निपुराणादिदृष्टां साहित्यप्रक्रियां भरतः सङ्क्षिप्ताभिः कारिकाभिर्निबबन्ध।
>
> (Ibid, p.3)

However, the authors who followed these great pioneers in the field of *Alaṅkāraśāstra*, mostly accepted the *Nāṭyaśāstra* of Bharatamuni as the origin of *Alaṅkāraśāstra*. [3]

Ashok Kelkar has taken it for granted that *Alaṅkāraśāstra* just grew as appendage to the study of Dramaturgy in our country, and the theories on drama and theatre preceded the literary theories, so that the latter had to be based on the former.[4] He also assigns the *Nāṭyaśāstra* of Bharatamuni a governing position in the realm of *Śāhityaśāstra*, believing that the authors on Poetics dared not to violate the dicta of Bharata.[5]

However, we find that the tradition does not attest to the theory of origin of Sanskrit Poetics out of *Nāṭyaśāstra*. The words *kavi* and *kāvya* occur in our literary tradition much before the use of words like *naṭa* or *nāṭya*. Not only the words, the basic theories relating these words to the conceptual framework of *Alaṅkāraśāstra* are hinted upon in *Ṛgveda*.[6] The use of the prefix *aram* or *alam* and the word *araṁkṛti* in *Ṛgveda* have prepared the ground for *Alaṅkāraśāstra*.[7] The concept of *Upamā* as an *alaṅkāra* or poetic figure is also hinted upon in Vedic *saṁhitās*.[8] Much before Yāska, an analysis of *Upamā* or Simili as a poetic figure was prepared by Gārgya, who had enumerated five types of *Upamās*. Yāska in VII century BC is quite aware of these discussions which reveal a rich tradition in the Principles of Literary Criticism in Ancient India. We do not find such an old tradition in the field of *Nāṭyaśāstra* before Bharata.

On the other hand, no *ācārya* of *Alaṅkāraśāstra* has suggested the origin of his *Śāstra* out of *Nāṭyaśāstra*. Bharatamuni is accepted as an authority on *Rasa*. He is not even said to be the originator of this theory, *Nandīśvara* is credited with orginating the theory of *Rasa*.

Rājaśekhara in his mythological description of the evolution of *Alaṅkāraśāstra* or *Sāhityavidyā* has suggested

that various sections of this *Sāhityavidyā* had developed as independent *Śāstras* and were taken up by different authors in separate treatises (See Table 9). Rājaśekhara goes to the extent of suggesting that the very .vastness of this *Kāvyavidyā*, or its exuberance, subsequently became deterrent for its growth- "being thus scattered she (the *Kāvyavidyā* herself) got uprooted to some extent (This confirms the antiquity and richness of the tradition of *Sāhityavidyā* or *Alaṅkāraśāstra* before of advent of *Nāṭyaśāstra*).

"इत्थङ्कारञ्च प्रकीर्णत्वात् सा किञ्चिदुच्चिच्छिदे।"

(*Kāvyamīmāmsā*, Chap.1)

It is to be noted here that *Rūpakanirṇaya* or the treatise on Dramaturgy is one of the 18 sections of *Kāvyavidyā* which was adopted by Bharatamuni to be developed into an independent tradition. This means that *Nāṭyaśāstra* according to Rājaśekhara grew out of the fold of *Kāvyavidyā* or *Sāhityaśāstra*, and not the vise-versa.

Both MM Kane and Dr. De cite the passage from Rājaśekhara at the very outset of their Histories. Dr. De remarks

> "The historical value of this passage of Rājaśekhara may indeed be well doubted, but it is possible that this unique account, apart from its obviously mythical garb, embodies a current tradition, implying the actual existence of some remote and forgotten period, or early expounders of poetic theory, some of whose names are still familiar, but most of whose works have appaı ently parished." (De, p. 1-2).

However, Dr. De is in favour of regarding *Nāṭyśāstra* as "a cognate branch of study, which probably supplied poetics with a model, and poetic theory with the important content of *Rasa*." (De, p. 16).

Further, this is to be noted that there is no such section as *alaṅkāra* amongst the 16 sections of *Sāhityavidyā* as described by Rājaśekhara. *Alaṅkāra* is not a section or branch of *Sāhityavidyā*, it is the *sine-qua none* of poetry, it imbibes all the categories of literature. It signifies the completeness of poetic beauty and structure. That is why the science of literature itself came to be known as *Alaṅkāraśāstra* or *alaṅkāra* only. The three meanings of the term *alaṅkāra* as enumerated by Amarasimha in his Lexicon - viz. *bhūṣaṇa*, *vāraṇa* and *paryāpti* (beautification, stopping and perfection) are interrelated to each other. (See Table 6) . The origin of *Alaṅkāraśāstra* therefore should be searched in the traditions of its *lakṣya* and not in any other *śāstra*.

II

What status does *Alaṅkāraśāstra* enjoy in the traditional curricula of the ancients ? This question should have been discussed to understand the position of *Alaṅkāraśāstra* or *Sāhityavidyā* amongst the traditional *vidyās* or subjects for study. Rājaśekhara, an important author of Xth century, in his *Kāvyamīmāṁa*, has made an attempt to identify the status of *Alaṅkāraśāstra* amidst the traditional *vidyās*. He establishes *Sāhityavidyā* as the fifth *vidyā*. That means that four *vidyās* were normally to be studied - *Trayī* or three *Vedas*, *Vārtā* or agriculture and maintaining of the cows etc,. *Ānvīkṣikī* or Logic and *Daṇḍanīti* or polity. [9] The position of the *Sāhityavidyā* or *Alaṅkāraśāstra* amongst the four *vidyās* will not just be as an appendage to them, but as their essence (See Table -4) .

Rājśekhara also says that *Alaṅkāra* should be held as the seventh *Vedāṅga*, because it helps in the understanding of the *Veda*. (See Table-3).

Tradition does not exclude *Veda* from the realm of *Kāvya*, we can say that it is an *apauruṣeya kāvya*. And if it is *Kāvya*, then *Kāvyaśāstra* should step in to interpret it. The mutual obligation of *Veda* and *Kāvyaśāstra* is not overruled even by the modern studies. MM Kane, in the section on the Early beginings of Sanskrit Poetics in his History has cited profusely from *Ṛgveda* to prove that the concepts of poetic beauty had been evolved at the time when the seers were composing the *mantras*.[10]

Rājaśekhara also holds *Kāvya* as the fifteenth *Vidyāsthāna*, and as an essence of the fourteen *vidyās* (See Table- 5).

This status of a fifth *vidyā* or the seventh *vedāṅga* which Rājśekhara has proposed for *Alaṅkāraśāstra* has wider implications. It is not just the question of glorifying *Alaṅkāraśāstra* or giving an apology for it. The stand taken by the *ācāryas* established the autonomy of the *śāstra* as well as the autonomy of literature. The *svataḥ-prāmāṇya* of poetry was taken as an established fact. *Alaṅkāraśāstra*, which spells out the philosopy of poetry can be taken as a *Vedic darśana*. It is authenticated by the Veda and it is needed for interpretating the *Veda*. *Veda* views *vāk* or word as an onipresent and omnipotent deity. Who creates this world.[11] In the same way the poetic word creates, - it can create a new mind, a better human being, - a better society. Abhinavagupta and all other *ācāryas* following this tradition of *Kāvyaśāstra* or *Sāhityavidyā* as a Vedic *darśana* accept the irreversible and irrevocable power of the poetic word, its inherent capacity for improvement of human mind and

for the betterment of the society. Abhinava says that the spectator of the dramatic performance and the reader of a poetic piece enter the realm of art-experience with the determination that by undergoing the dramatic experience or the experience gathered from a literary piece, they will achieve some ultimate, they will shred off the inauspicious or evil and will be enjoined by something auspicious.[12] This leads to the belief that *Sāhitya* can change the outer reality. It can govern the external realities and it can lead to the emancipation or salvation of the mankind. The experience of *Rasa* does not cease with the dropping of the curtain on the stage or with finishing the reading of a poem or literary piece, it remains imprinted on our mind, which undergoes a change through this experience. Art and *Balles lettress* thus not only provides nourishment to our soul and heart, they also tend to change this world for betterment in their own subtle way. Rājaśekhara therefore says -

कविवचनायत्ता लोकयात्रा, सा च निःश्रेयसमूलम्।
(*Kāvyamīmāṁsā*)

This life is governed by the words of *kāvya*, which is the means to salvation.

The position of *Alaṅkāraśāstra*, according to traditional outlook can be defined in this way - *Kāvya* or poetry is a means to *puruṣārthas* or the ultimate ends of human life, and *Alaṅkāraśāstra* is the philosophy which explains it as a means for emancipation and salvation of mankind.

III

The modern authors also appear to believe that they are viewing the whole tradition of *Alaṅkāraśastra* in a historical perspective by analysing it in six systems or schools. Again, we find that the tradition of *Alaṅkāraśāstra* itself does not subscribe to any such division of the *śāstra* into these so called schools. The only *ācārya*, who appears to be analysing the whole tradition of *Alaṅkāraśāstra* from the view point of different theories or outlooks is *Samudrabandha.*[13] At the very outset of his commentary on *Alaṅkārasarvasva*, he says - "Poetry is a special combination of words and meanings, and this speciality manifests through *dharma* (attribute), *vyāpāra* (Process) and *vyaṅgya* (suggested sense). Of these three also, the first one, i.e., the *dharma* has two aspects - *guṇa* and *alaṅkāra*. The second one, i.e., the *Vyāpāra* or poetic process also is of two types -- *uktivaicitrya* (obliquity of expression) and *bhogakṛtva* (the state of aesthetic bliss). Thus we have five fundamentals that make poetry. Of these Udbhaṭa and his followers accepted the first one (*alaṅkāra*), Vāmana and others accepted the second (*guṇa*), Kuntaka stood for the third (*Vakrokti*), while Bhaṭṭanāyaka elaborated upon the fourth one (*bhogakṛtva*) and Ānandavardhana based his theory on the fifth one (*vyaṅgya*).

Samudrabandha, however, did not mean to establish these five aspects of poetry as five different schools of thought in the tradition of *Alaṅkāraśāstra*. He only meant to say that these five aspects of the special nature of the combination of the words and the meanings in poetry are complimentary to each other and thus we have five angles to define the special nature of poetry.

It is interesting to note that it was MM Kane himself who is responsible for this idea of dividing Sanskrit Poetics in six schools.

He defined or termed these concepts as "schools". Emphasis was laid on the refutation by the *ācāryas* of one school or the other, and a cronological order in the development of these so called schools was also established by Kane and other authors who wrote after him.

The theory of *auçita*, postulated by Kṣemendra, is completely subservient to the theory of *Rasa*. Kṣemendra calls himself a very humble follower of Ānandavardhana and Abhinavagupta (he was a student of Abhinavagupta actually). He does not propose to establish a school of *aucitya* by analysing the concept of poetic propriety and enumerating its varieties. Similarly Vāmana nowhere presents his credentials as a propounder of the schools of *Rīti* and *Guṇa*. He is a thourough *Alaṅkāravādin*. *Alaṅkāra* to him is synonymous with poetic beauty in all its totality.

The picture of the so-called historical development of the schools of poetics, where finally *Dhvani* theory prevails, therefore needs revision. The modern studies in *Alaṅkāraśāstra* not only established an artificịal compartmentalisation in various concepts of *Alaṅkāraśāstra*, they also subscribe to the view that the *Dhvani* theory finally got the uppeṛ hand, and all other systems or schools were vanquished by it. Dr. De says -- "Ānandavardhana's system, no doubt, absorbed and overahadowed in course of time all the earlier systems ." (De, p. s. 24).

This certainly is an exaggeration. Texts on the theory of *alaṅkāra* continued to be produced not only after Ānandavardhana, but after Abhinavagupta, Mammaṭa and Viśvanātha also. Attempts to establish a synthesis between diverse concepts were made by author like Bhoja. When Paṇḍitarāja Jagannātha was writing his *magnum opus Rasagaṅgādhara* in the XVII century, Appaya

Dīkṣita had already produced two very fine works on *Alaṅkāra*, imbibing the *Dhvani* theory in the fold of *Alaṅkāra* itself. Also, the host of writers who wrote commentaries on Kālidāsa, Bhāravi, Māgha, Bhavabhūti, Śrīharṣa and other great poets throughout several centuries, which provide fine specimen of practical criticism also, analyse these poets more by the equipments provided through the theory of *Alaṅkāra*.

Dr. R.C. Dwivedi questiones the propreitey of this compartmentalisation of the tradition of Sanskrit poetics into different schools. The modern authors writing the history of Sanskrit poetics presumed that the theory of *alaṅkāra* failed to encompass the poetic beauty in toto, and therefore, it had to be replaced by the *Rasa-dhvani* school, which claimed to have provided a most comprehensive and all pervading theory for understanding literature, Attempts by some of the *ācāryas* of *Alaṅkāraśāstra* at exploring the true nature of *alaṅkāra* where it is to be treated at par with the complete structure and beauty of a poem were ignored. Bhoja, for example, enumerates three types of *alaṅkāras* - *Bāhya* (external), *Ābhyantara* (internal) and *Bāhyābhyantara* (internal-cum-external). He also provided a very comprehensive view of the theory of *alaṅkāra*. [14]

How should we view these systems or concepts of *alaṅkāraśāsra* then ? In fact, they are complimentary to each other. There are three aspects of poetry - Its structure, its design or suggestions and its value for the society or mankind. (See Table 7). The theories of *Alaṅkāra*, *Rīti* - *Guṇa* and *Vakrokti* present an analysis of poetry on the basis of its structure. The *Rasa dhvanivādin* interprets it in accordence with its designs or suggestions including the emotions : and the theory of *Aucitya* evaluates it on the basis of the values or moral standards.

We can also say that these three facets are meant for the poet, the connoisseure and the critic (See Table 7).

But it is impossible to view these three aspects of poetry in isolation. They are integrated in the complex structure of a literary piece. The complexity or depth of this integration enriches poetry. Vāmana and Śaṅkuka have termed this complexity as *Samplava.*[15]

Can we re-organise the systems of *Alaṅkāraśāstra* on the basis of this concept of *samplava* ? The element of *samplava* is imbued with various layers of the structure of a poetic piece. It has a surface structure and a deep structure.The *Bāhya-alaṅkāras*, the *Śabdaguṇas* and *vakrokti* (*padavakratā* and *vākya-vakratā*) belong to its surface structure, whereas the *ābhayantara alaṅkāra*, *arthaguṇas* belong to its deep structure. *Rasa* forms the core of this *samplava*. All the concept or so-called schools of poetics culminate in this *samplava*, which also provides a criterian for evaluating literature.

IV

Alaṅkāra is one of the fundamental elements in poetry. It is regarded as the *sine qua none* in poetry by the *alaṅkāra-guṇa-rītivādins* and the *dhvanivādins* also hold *alaṅkāra* as a desideratum in poetry. There are two approaches to *alaṅkāra* in our tradition. The holistic approach regards it as an integral part of poetry, whereas the other outlook holds it as an additional decor. *Alaṅkāra* is in fact synonymous to poetic beauty. It is only owing to practical purpose that it is analysed into various types and varieties. In course of this analysis various *alaṅkāras* are regarded as exterior to poetry, as if they can be taken out of it. Kuntaka rightly remarks-

अलङ्कृतिरलङ्कार्यमपोद्धृत्य विवेच्यते।
तदुपायतया तद्वत् सालङ्कारस्य काव्यता।।

(Vakroktijīvita, 1.6)

"The 'adornment' and the 'adorned' are distinguished artificially for the purpose of our enquiry, because this would be the only means to attain the ultimate goal. The truth of the matter, however, remains that the two together constitute poetry. " (Tr-by K. Krishna Moorthy).

The hair-splitting divisions of *alaṅkāras* have led to the misconception that *alaṅkāra* is something external in poetry and that it can be done away with. A re-organisation of the *alaṅkāras* therefore should be attempted keeping in view the comprehensive nature of the *alaṅkāra* and its inseperility.

Rudraṭa has given four-fold classification of *Alaṅkāras*

1. ***Va*** - *Vāstavamūlaka* (based on factual statement)
2. ***Au*** - *Aupamyamūlaka* (based on similitude)
3. ***At***- *Atiśayamūlaka* (based on exaggeration)
4. ***Sl*** - *Śleṣamūlaka* (based on Paronomsia)

Each of these comprise a gamut of *alaṅkāras* and these *alaṅkāras* can be further regrouped.

There are 23 *alaṅkāras* under ***Va***. By logical deduction, they can be redesigned as under -

(Va-1) : Based on the idea of togetherness.
(Va-2) : Based on Sequencial order.
(Va-3) : Based on difference/dichotomy.
(Va-4) : Based on Emotion .

(*Va*-5) : Based on suggestion of Transferrence of meaning.
(*Va*-6) : Based on lmagery.

See Table - 9

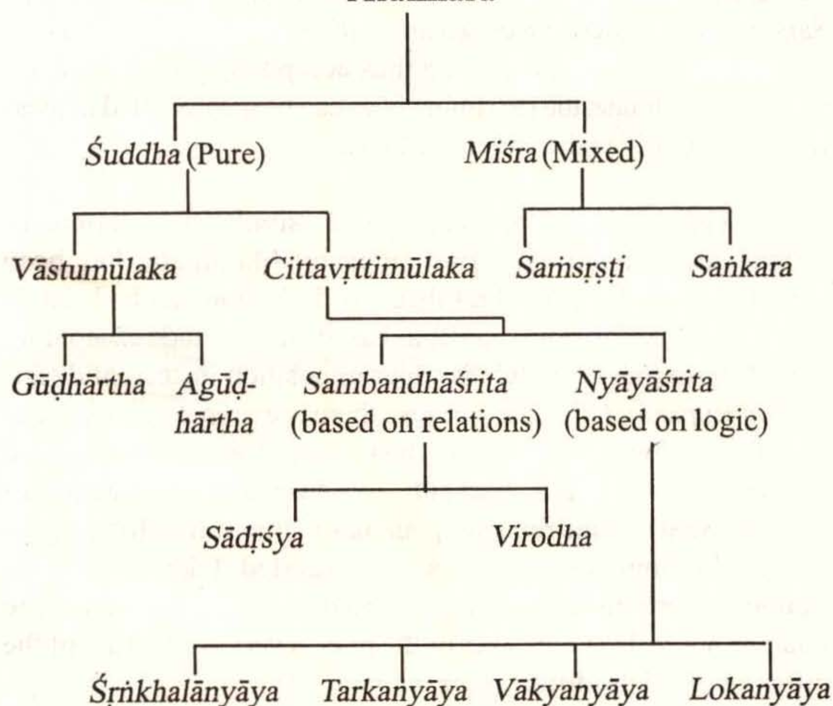
21 *Alaṅkāras* have been listed under the Category of ***Au.*** They can be regrouped as under-
(*Au*-1) : Similarity with difference.
(*Au*-2) : Superimposition.
(*Au*-3) : Relationship by Superiorily.
(*Au*-4) : Parallel Statements.
(*Au*-5) : Identification.
(*Au*-6) : *aur* Suggestion of similitude
see Table- 10

The At type is based on exaggeration. It can further be classified as under -
At-1 : Transcending logical relationships
At-1(a) : Transcending order/sequence
[*Pūrva* and *Viśeṣa*]
At-1 (b) : Transcending causality
[*Vibhāvanā, Vyāghāta, Hetu*]
At-1 (c) : Transformation
[*Utprekṣā, Viśeṣa* of II type,
Pihita, Tadguṇa,]
At-1(d) : Contradiction -
[*Virodha,* Virodhābhāsa]

Re-organistion of Sl type is not needed. It is a category based only on *Śleṣa alaṅkāra.*

Ruyyaka has further expanded the classification by Rudraṭa. But the *vāstavamūlaka* of Rudraṭa, which he also accepts, can incorporate some of the other subsidiary categories which Ruyyaka classifies.

Table -2



Synthesis of *Alaṅkāras*

Multiplication of varieties is digressive and also misleading at times. It is necessary to shortlist the *alaṅkāras* for their proper identification. Keśava Miśra, a later rhetorician has been bold enough to discard the enormity of numbers and come out with only fourteen *arthālaṅkāras* all in all. They are *Upamā, Rūpaka, Utprekṣā, Samāsokti, Apahnuti Samāhita, Svabhāva, Virodha, Sāra, Dīpaka, Sahokti, Anyāpadeśa Viśeṣokti* and *Vibhāvanā*. (*Alaṅkāraśekhara* , Chap XI, p. 29). Keśava Miśra thus accepts only five *alaṅkāras* based on similitude, the remaining ones can be incorporated in these five, particularly in the varieties of *Upamā*.

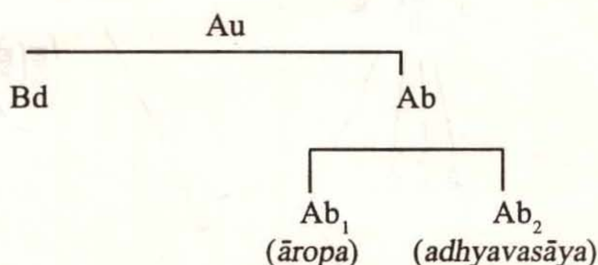
The simple definition of *Upamā* - similarity in defference (*bhede sati sādharmyam*) as given by Mammaṭa, has been accepted by Keśava. We find that this definition can be broadly applied in case of various *alaṅkāras* based on similitude except four viz . *Rūpaka* (because there is super imposition instead of difference in *Rūpaka*), *Utprekṣā* (because there is extreme doubt instead of difference here). *Samāsokti* (as behaviour of one is superimposed on the other in it) and *Apahnuti*, (bacause there is negation of *upameya* in it). In the remaining *alaṅkāras*, the similarity may not be directly communicated, it may be suggested. Take Saṁśaya for example. Here the *upameya* is doubted to be the *upamāna*. The doubt is not real. The speaker or the poet is very well aware of the difference, and the difference is maintained.

Thus accepting Keśava Miśra's stand point, we can simply devide all the *alaṅkāras* based on similitude into two categories-

(A) Similarity where difference between two things is maintained,

(B) Excessive similatiry leading to superimposition of identification .

Ruyyaka has termed these two categories as *bhedābhedatulya* (Bd) and *abhedapradhāna* (Ab) respectively. He includes *Upamā, Ananvaya, Upameyopamā* and *Smaraṇa* in the first category. The Second category has two subdivisions i.e. on the basis of *āropa* (Ab_1) and *adhyavasāya* (Ab_2) respectively. *Adhyavasāya* is again of two types to be accomplised and accomplished. These can be displayed through table as under :



Major flagmarks in the *alaṅkāras* based on simulitude can be stated as under -

(1) *bheda* (difference)
(2) *bhedābheda* (difference - cum- identity)
(3) *abheda* (identity)

Similarly in the *alaṅkāras* base on actual statement the following major flagmarks can be discerved

(1) Logic
(2) Emotion
(3) Imagery

There are two basic tendencies in the *alaṅkāras* based on exaggeration - Transcendence of logic and contradiction.

A re-organisation of the *alaṅkāras* on the basis of the major tendencies in poetic structure can be attempted to present a comprehensive picture of the system.

Table -1

काव्यप्रकाशः प्रथम उल्लासः

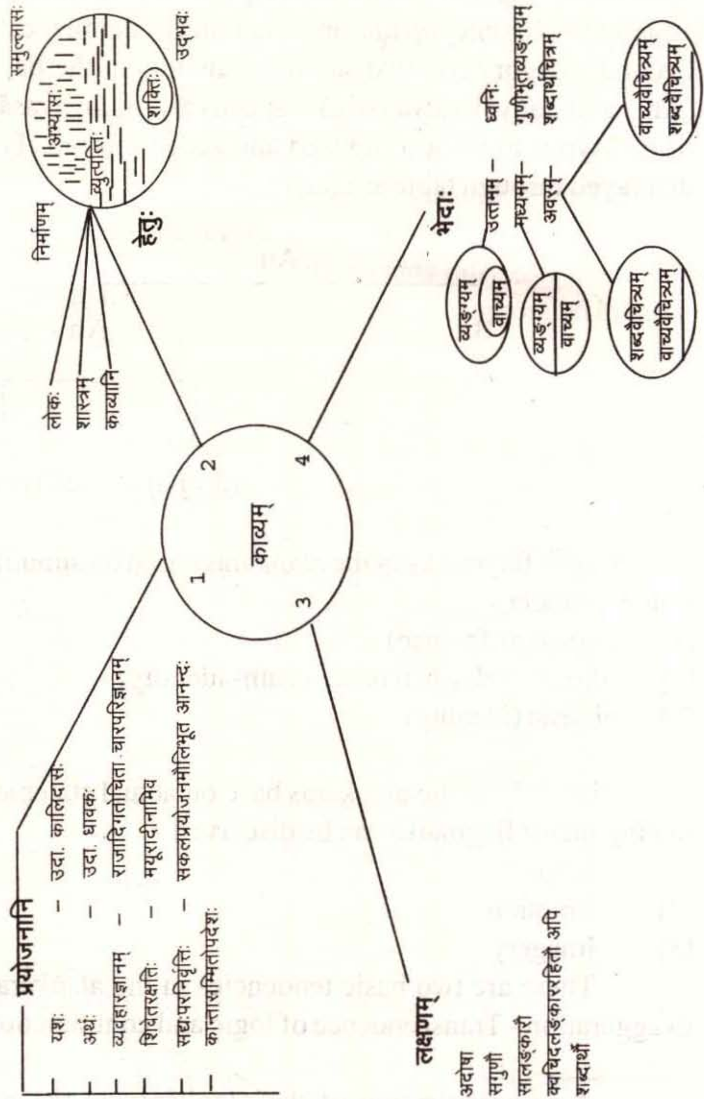


Table -3

VEDĀṄGAS

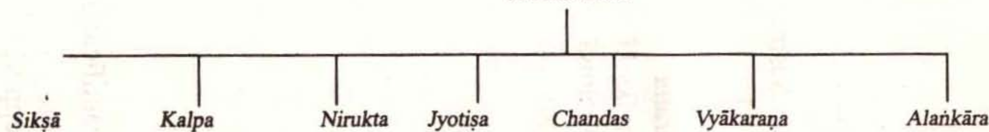


Table - 4

VIDYĀS

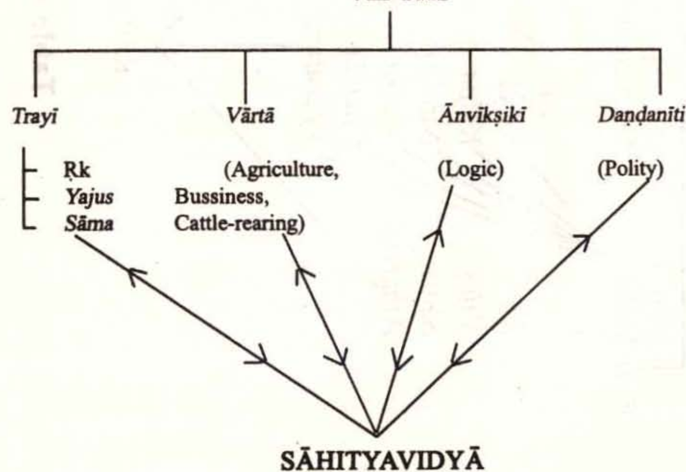


Table - 5

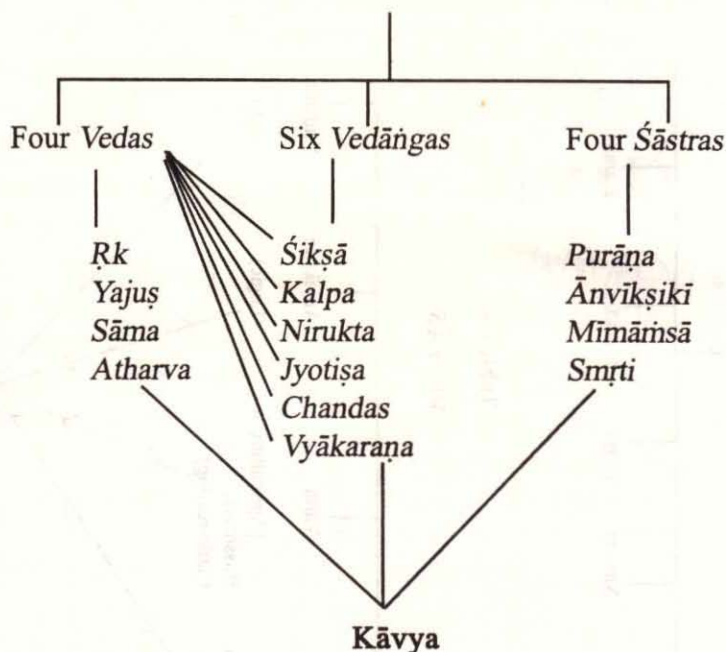


Table -6

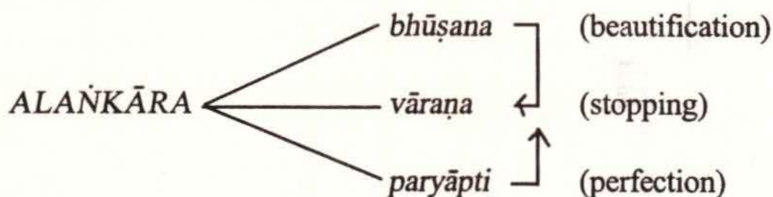


Table - 7

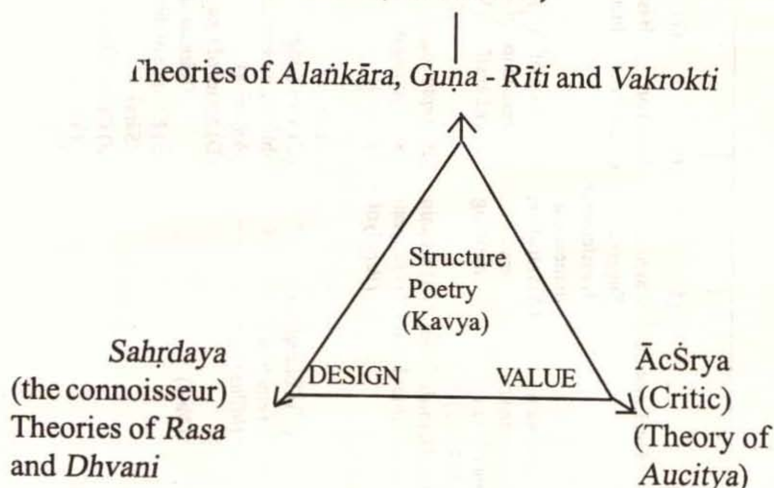


Table -8

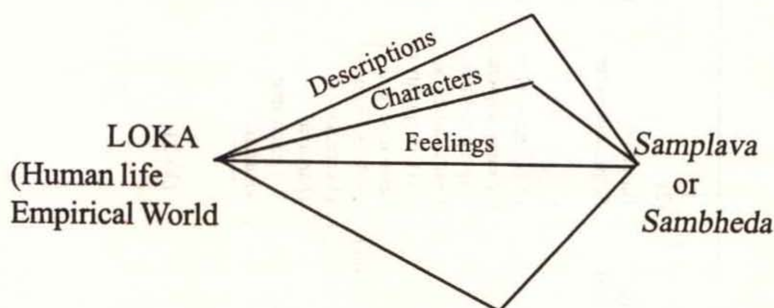


Table - 9

Va

(1)	(2)	(3)	(4)	(5)	(6)	(7)
(A) Two things going together *(Sahokti)*	Based on Sequencial order	Based on difference	Based on Emotion	Based on Suggestion, Transferrence of meaning	Based on Causality	Based on Imagery
(B) Many things in One substratum *(Samuccaya)*	(A) Continuity in the same sequence respective order (*Yathāsaṁkhya*)	(A) Refutation of Relationship *(Viṣama)* *(Bhāva)*	(A) Emotion expressed by *anubhāvas* *(Sūkṣma)*	(A)Transferr-ence of meaning	(A) Chain of resultants (*Ekāvalī*)	(A) JĀTI (B) *Parikara* (Va-7)
(C) One Verb for several *Kārakas* and several verbs for one *Kāraka (Dīpaka)*	(B) One quality in several, several qualities in one *(Vyatireka)* *(Paryāya)*	(B) Superiority of one over the other	(B) Bemish turned into Virtue (Leśa)	(B) Meaning is suggested *(Paryāyokta)* (Va-5)	(B) Reply sugge-sting question *(Uttara)*	
(D) Reference to an additional quality (*Avasara*)	(C) Exchange *(Parivṛtti)*	(C) Dem6arking or delimiting the area *(Parisaṁkhyā)*	(C) Concealment of emotion *(Mīlita)*		(C) Two things obliging each other *(Anyonya)*	
					(D) Series of Causes *(Kāraṇamālā)*	
					(E) Essence of things *(Sāra)*	
					(F) Cause *(Hetu)*	
(*Va*-1)	(*Va*-2)	(*Va*-3)	(*Va*-4)		(Va-6)	

Table -10

Au-1	Au-2	Au-3	Au-4	Au-5	Au-6
Upamā *Upameyopamā* *Pratīpa* *Ananvaya*	*Rūpaka* *Apahnuti* *Samāsokti* *Anyokti* *Uttara* *Utprekṣā* *(Mata is identical to utprekṣā)*	*Vyatireka*	*Dṛṣṭānta* *Sahokti* *Samuccaya* *Smaraṇa*	*Saṅdeha* *Bhrāntimān* *[Atiśayokti]*	*Arthāntaranyāsa* *Ubhayanyāsa* *[Aprastutapra-śaṅṣā]*

Notes & References :

1. Kane, p. 10; De, p. 16.
2. Kane, p. 3.
3. Ibid, p. 10.
4. Kelkar, 1995, p. 19, p. 71.
5. Ibid.
6. See "*Bhāratīyakāvyaśāstrasamunmeṣaḥ*" by this author in *Sāgarikā* XXX. 1 and I chap. in *Kāvyaśāstra* aur *Kāvya* by the same author.
7. (i) यः स्वयं वहते सो अरम् करत। *Ṛgveda,* 5.44.8.
   (ii) यथा विद्वान् अरम् करत विश्वेभ्यो यजतेभ्यः। Ibid., 2.5.8.
   (iii) अरं कृण्वन्तु वेदिं समगतिमिन्धतां पुरः .कव। 1.170.4.
8. स्वादुक्षद्‌गा यो वसतौ स्या कृज्जीवयाजं यजते सोपमा दिवः। *Ṛgveda* 1.31.15.
9. आन्वीक्षिकी त्रयी वार्ता दण्डनीतिश्चेति विद्याः।
   -*Arthaśāstra*, 1.2.1.
10. Kane, p. 326.30.
11. अहमेव वात इव प्रवाम्यारभमाणा भुवनानि विश्वा।
    परो दिवा पर एना पृथिव्यै तावती महिना सं बभूवा।। – *Ṛg.*, X. 125.8.
12. नाट्येन तु परमार्थिकं किञ्चिदद्य मे कृत्यं भविष्यतीत्येवम्भूताभिसन्धिसंस्कारा–भावात् सर्वपरिषत्साधारणप्रमोदसारापर्यन्तसमादरणीयलोकोत्तरदर्शन–श्रवणयोगी भविष्यामीत्यभिसन्धिसंस्कारादुचितगीतातोद्यविस्मृतचर्वणा विस्मृतसांसारिक भावतया विमलमुकुरकल्पीभूतनिजहृदयः, सूच्याद्यभिनयावलो–कनोद्भिन्नप्रमोदशोकादितन्मयीभावः, पाठ्याकर्णनपात्रान्तरप्रवेशवशात् समुत्पन्ने देशकालविशेषवेशानालिङ्गिते सम्यङ्मिथ्यासंशयसादृश्यसम्भावना–विज्ञेयत्वपरामर्शानास्पदे, रामरावणादिविषयाध्यवसाये, तत्संस्कारानुवृत्ति–कारणभूत –तत्सहचरहृद्यवस्तुरूपीगीतातोद्यप्रमदानुभवसंस्कारसूचितसमनु–गततदुक्तरूपरामाध्यवसायसंस्कार एव भवन् पञ्चषैर्दिवसैः सचमत्कारतदीय–चरितमध्यप्रविष्टस्वात्मरूपमतिः स्वात्मद्वारेण विश्वं तथा पश्यन् प्रत्येकं सामाजिको देशकालविशेषापरामर्शे न एवं कारिणामिदमिति लिङ्गात्मक –

विधिसमर्पितसंविज्जातीयमेव संविद्विशेषरञ्जकप्राणवल्लभाप्रतिमरसास्वाद–सहचररम्यगीतातोद्यादिसंस्काररसानुभववशेन हृदयाभ्यन्तरनिखातं तत एवोत्पुङ्खशतैरपि म्लानिमात्रमप्यभजमानं भजंस्तत्तच्छुभाशुभप्रेप्साजिहासात–तस्यूतवृत्तित्वादेव शुभमाचरत्यशुभं समुज्झति।

Abhinavabhāratī, Pt., p. 36.

3- इह विशिष्टौ शब्दार्थौ काव्यम्। तयोश्च वैशिष्ट्यं धर्ममुखेन, व्यापारमुखेन, व्यङ्ग्यमुखेनेति त्रयः पक्षाः। आद्येप्यलङ्कारतो गुणतो वेति द्वैविध्यम्। द्वितीयेऽपि भणितिवैचित्र्येण भोगकृत्वेन वेति द्वैविध्यम् इति पञ्चसु पक्षेषु आद्य उद्भटादिभिरङ्गीकृतः, द्वितीयो वामनेन,तृतीयो वक्रोक्तिजीवितकारेण चतुर्थो भट्टनायकेन, पञ्चम आनन्दवर्धनेन।

Quoted by R.C. Dwivedi in *Alaṅkāra Sarvasvamīmaṁsā*, p. 88.

4- शब्दार्थोभयसंज्ञाभिरलङ्कारान् कवीश्वराः।
बाह्यानाभ्यन्तरान् बाह्याभ्यन्तरांश्चानुशासति।।

5- करुणप्रेक्षणीयेषु सम्प्लवः सुखदुःखयोः।
यथानुभवतः सिद्धस्तथैवौजःप्रसादयोः।।

Kāvyālaṅkārasūtra

प्रतिभाति न सन्देहो न तत्त्वं न विपर्ययः।
धीरसावयमेवास्ति नासावेयायमित्यपि
विरुद्धबुद्धिसम्भेदादविवेचितसम्प्लवः।
युक्त्या पर्यनुयुज्येत स्फुरन्ननुभवः कया।।

Śaṅkuka quoted by Abhinavagupta.

12

RE-ORGANISATION OF *GUṆAS* IN SANSKRIT POETICS

Purnachandra Upadhyaya

Theory of *Guṇa* was first propounded by Bharatamuni in his *Nāṭyāśāstra.* It was met with two fold approach in later rhetorics. The first view was put forward by *ātmāśrayavādins* who hold *guṇas* as essential qualities of *Rasa* - the soul of poetry. The second view belongs to the structuralist school. It regards *guṇas* as part of the *saṅghaṭanā* of poetry.

The concept of *guṇa* underwent a complete change after Bharata. Bharata viewed *guṇas* as juxtaposed to *doṣas* or blemishes.[1] The author of *Agnipurāṇa* disagrees with this view. To him, *guṇas* cannot be termed just as absence of *doṣas.*[2] *Agnipurāṇa* also belongs to the structuralist school. It specifically says that *guṇas* enhance the poetic charm. It lays down the two fold catagorisation of *guṇas* - *sāmānya* (general) and *vaiśeṣika*[3] (particular). Daṇḍin, Vāmana, and Vidyānātha treat the theory of *guṇa* under the structuralist school. Vidyānātha says -

अतो गुणानां सङ्घटनाश्रयत्वं युक्तम्।

Pratāparudrabhūṣana, p.335.

Ānandavardhana, heralding the new era of *Dhvani-* Theory in the tradition of Sanskrit Poetics, is opposed to these rhetoricians. He places *guṇas* as invariable qualities of *Rasa.*[4] Mammaṭa

and Viśvanātha are perfectly in agreement with him. These authors insist that *guṇas* are inherent qualities of *Rasa*, and they are superimposed on the word and meaning just by *upacāra*.

Kuntaka and Bhoja have given an altogether different treatment to *guṇas*.

Abhinavagupta in his commentary on Bharata's *Nāṭyaśāstra* accepts the quality in the conception of *guṇa* following Ānandavardhana's stand. He holds that *guṇas* are *Rasadharmas* and yet he follows Vāmana in the exposition of ten *guṇas* as laid down by Bharata. [5]

Daṇḍin and Vāmana both have corelated the concept of *guṇa* to that of *rīti*. Guṇas are responsible for specific nature of different *rītis*. Vāmana says -

विशिष्टा पदरचना रीतिः। विशेषो गुणात्मा।

Thus difference in the combination of *guṇas* generates different *rītis*. *Vaidarbhī* has also the *guṇas*, but their combination here differs from other *rītis*.

Bhoja has followed Daṇḍin in his treatment of *Guṇas*, but he has re-orranged them in three categories as under -

Śabda-guṇas : Śleṣa, Samatā and Saukumārya
Artha-guṇas : Prasāda, Arthavyakti and Kānti.
Ubhaya-guṇas : Ojas, Mādhurya and Audārya

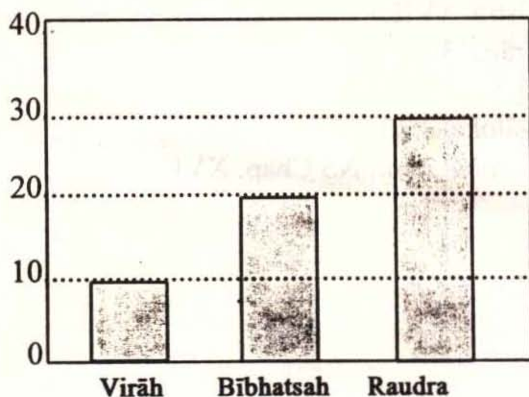
The combination of *guṇas* with *Rītis* can be exibited through the following table -

Characteristics of vaidarbhī	Characteristics of Gauḍī	Characteristics that must be in both Mārgas
Śleṣa-guṇa	Śaithilya-doṣa	
Prasāda-guṇa	Vyutapannatā, Anatirūḍha-śabdatā, two Doṣas	
Mādhyama-miśra bandha	Śaithilya, Pāruṣya and Vaiṣamya.	
Avaiṣamya	Anuprāsa and Arthālaṁkāra-ḍambara	
Śrutyānuprāsa Mādhurya	Utkaṭa-varṇānuprāsa and Nātidūrasthityā-	
Durāntarasthityānuprāsa Mādhurya	nuprāsa resulting in Bandha-pāruṣya and Śaithilya.	
Sukumāratā	Niṣṭhura-dīpta-śabda	
Aniṣṭhura-śabda and Anūrjita-artha.	and -Ūrjita-dīpta-alaṁkṛta	
Ojas only in Gadya- If in Padya, only Anukula and Hṛdya Ojas	Ākula and Ahṛdya Ojas and Ojas in verse also	
Kānti	Atyukti	Mādhurya of both kinds of Agrāmyatā Arthavyakti Udāratā Samādhi

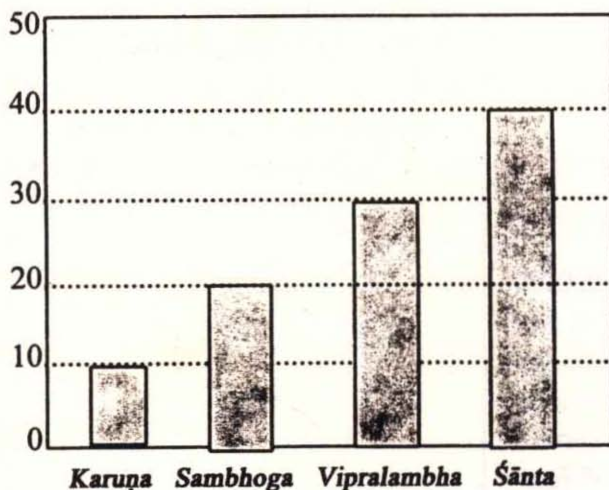
Notes & References :

1. *Nāṭyaśāstra*, XVII.4
2. *Agnipurāṇa*, 3.6.2
3. *Ibid*, 3.6.3
4. *Dhvanyāloka*, 2.20
5. *Abhinavabhāratī* on *NS* Chap. XVI.

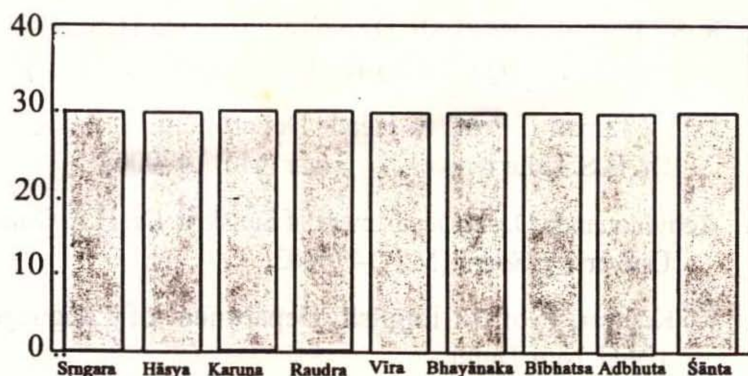
Ojas as Embedded in Rasa



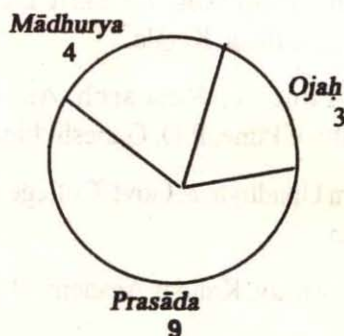
Mādhurya as embeded in *Rasa*



Prasāda as embeded in *Rasa*



Guṇas as enshrined in *Rasa*



ADDRESSES OF THE CONTRIBUTORS

1. G. Mishra, RIAS in Philosophy, Madras University, Madras.

2. R.S. Pathak, English Department, Dr. H.S. Gour University, Sagar (M.P.) 470003.

3. R. V. Tripathi, Prof. & Head, Department of Sanskrit, Dr. H.S. Gour University, Sagar (M.P.) 470003.

4. Achyutananda Dash, Department of Sanskrit, Dr. H.S. Gour University, *Sagar* (M.P.) 470003.

5. K. Kapoor, Prof. of English, Department of Language J.N.U. New Delhi.

6. Banamali Biswal, G.N. Jha Kendriya Sanskrit Vidyapeeth, Allahabad.

7. Keshab Chandra Dash, Department of Navya-Nyaya, Shri Jagannath University, Srivihar, Puri Orissa.

8. S. Pandurang Bhatta, Department of Sanskrit, Pondicherry Central University, Pondicherry.

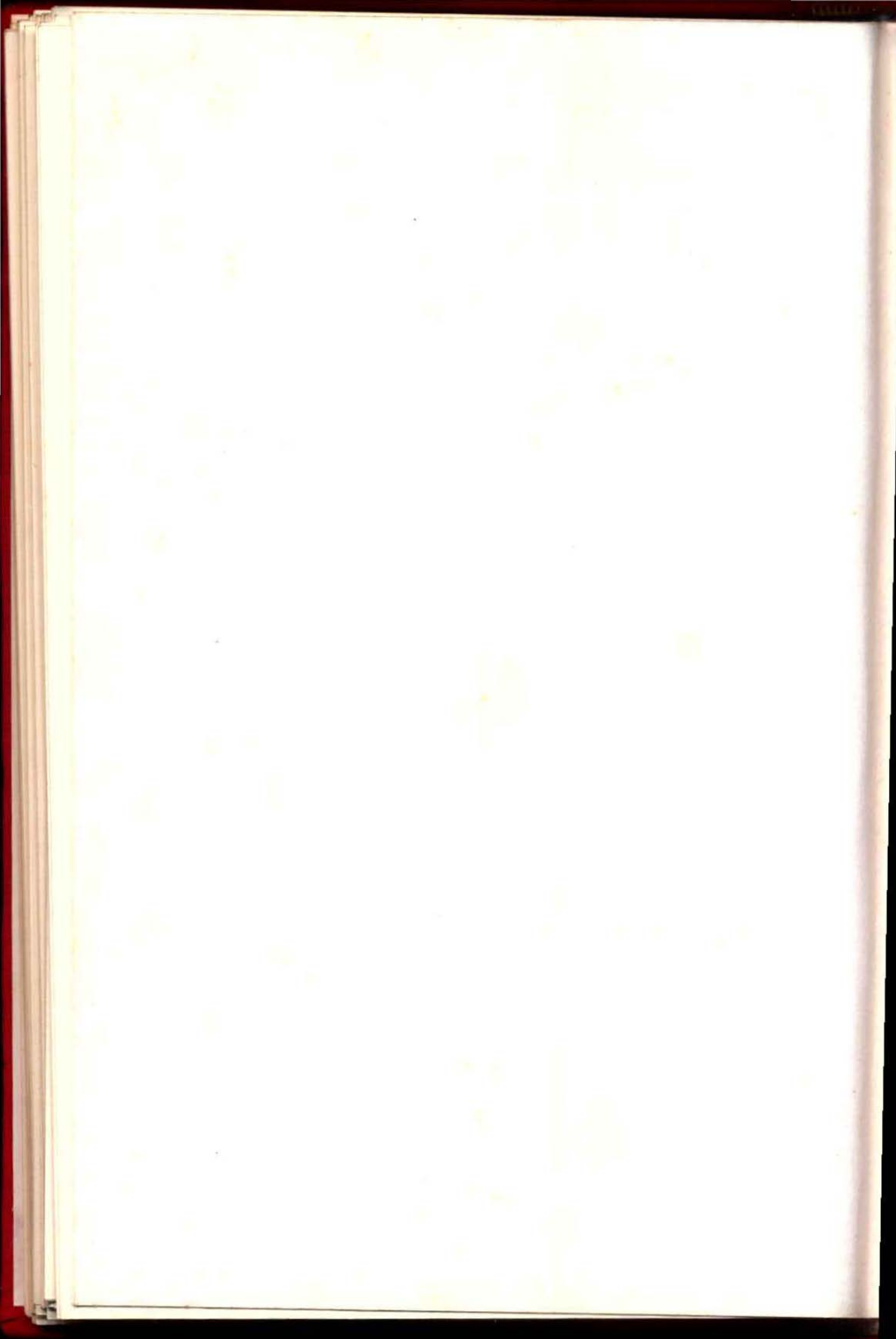
9. C. Rajendran, Professor, Sanskrit Department, Calicut University, Calicut, Kerala.

10. Ramakant Pandey, Research Associate, C.A.S.S. University of Pune, P.O. Ganeshkhind Pune - 411007.

11. Purnachandra Upadhyaya, Govt. College, Bhavanimandi, Rajasthan.

12. Bachchulal Awasthi, Kalidas Academy, Ujjain.





Dr. Radha Vallabh Tripathi is at present working as Professor and Head of the Department of Sanskrit, Dr. Hari Singh Gour University of Sagar. He has published 75 research papers and 54 books, and has completed a number of research projects. He specialises in Nāṭyaśāstra and Sāhityaśāstra.

He has been editing three Research Journals - *Nāṭyam* (Hindi Qly.), *Sāgarikā* (Sanskrit Qly.) and *Madhyabhāratī* (bi.lingual, bi-annual).

Dr. Tripathi has received 15 awards, mostly of National level, including M.M. P.V. Kane memorial Gold Medal of Asiatic Society, Bombay (for best research work of 1995) and the Sahitya Akademi Award of 1994 for creative writing in Sanskrit.

Dr. Achyutananda Dash is Reader in the Department of Sanskrit, Dr. Hari Singh Gour University of Sagar. He has published 15 research papers in various journals of International level alongwith three books and has studied Nyāya and Vyākaraṇa with Pt. Shrinivas Shastri at Pune. He has worked with Prof. S.D. Joshi as a researcher and subsequently as a sub. Editor in the Sanskrit Dictionary Project at Deccan College. He specialises in Vyākaraṇa and Linguistics. He has been a guest lecturer at Oxford and was also awarded Common Wealth Fellowship (UK).



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